MYTH OF GRAVITY

FROM

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Gregory Lessing Garrett

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Miti i Gravitetit

G eshte per Freemasonerine...nenkuptoj Gravitetin

Pothuajse kushdo që kalon çdo kohë duke kërkuar në shoqëritë sekrete pas Panoramës së veprimtarisë konspirative në këtë vend dhe në mbarë botën, padyshim që është njohur me Masonerinë dhe nga ana tjetër me famëkeqin, "G", që shpesh përfshihet në The Square dhe Compass. Logo e masonerisë. Dhe shpjegimet e përcipta do të thellohen në nocionin e Zotit Mason ose Arkitektit të Madh, por kjo, "G", thuhet gjithashtu se përfaqëson të ashtuquajturin Parim Gjenerativ.

Përfundimi i qartë është se Masoniku, "G", përfaqëson, të paktën në një mënyrë ekzoterike, Gravitetin, vetë forcën që Frimasonët thonë se qeveris Kozmosin e tyre Kabalist.

Megjithatë, një shpjegim për këtë thotë se Arkitekti i Madh, natyra hyjnore banon te Njeriu dhe se është veçanërisht aktive dhe shprehëse në pasionin seksual. Dhe kështu, kënaqësia e këtij pasioni është e pëlqyeshme për hyjninë dhe është detyrë e Masonit. Prandaj, ai synon ta bëjë të shenjtë pasionin seksual duke e bërë ratifikimin e tij një detyrë morale dhe fetare. Nga ana teologjike, masoneria është një lloj panteizmi. Hyjnia duke qenë Parimi Gjenerativ, zotëron fuqinë riprodhuese që përshkon të gjithë natyrën e gjallë dhe duke qenë se kjo fuqi shihet si e mishëruar në Njerëzim, ajo vendos Unitetin ose Bashkimin e Njeriut me Natyrën Hyjnore.

Tani asgjë nga këto nuk është vërtet diçka e re. Por ajo që është interesante është se ky institucion mason është kaq i pazgjidhshëm i lidhur me krijimin e NASA-s, dhe veçanërisht me astronautët masonë. I gjithë Parimi Gjenerativ dhe theksi i tij mbi riprodhimin, dhe për rrjedhojë, padyshim, Teoria e Evolucionit, është e lidhur ngushtë me narrativën e Hapësirës së Jashtme dhe Evolucionin Kozmik të

Njerëzimi në përgjithësi. Kështu, ka kuptim të përsosur që Masoneria do të ishte plotësisht, ose pjesërisht, përgjegjëse për krijimin e një institucioni si NASA për të çuar përpara Doktrinën e tyre të rreme të Evolucionit dhe Apoteozën Transhumaniste (Të bëhesh Zot) përmes Teologjisë së Ngjitjes Kozmike.

Në këtë sistem teologjik, Hapësira e Jashtme është një metaforë për ideologjitë fetare Luciferiane, një lloj Qielli Materialist i rremë, nëse dëshironi. Duke qenë kështu, me shpejtësi fillon të duket se i gjithë programi hapësinor i NASA-s nuk është gjë tjetër veçse një mënyrë për të përforcuar një bazë të Kopernikut.
Paradigmë evolucionare për të përjetësuar Sistemin Fetar Mistik Masonik. Dhe kështu në shumë mënyra, NASA shërben për të indoktrinuar në thelb masat në një Kult Luciferian të Ngjitjes Kozmike, ku raketat përfaqësojnë

Fuqia riprodhuese falike e Parimit Gjenerativ Masonik dhe Eksplorimi i Hapësirës përbën një Eksplorim të Ndërgjegjes së Lartë Kozmike. Me të drejtë, të përbashkëtat midis NASA-s, Frimasonerisë dhe Epokës së Re, për këtë çështje, të gjitha bashkohen së bashku në një Agjendë Panteiste Luciferiane të vetme. Në këtë kontekst, mësimet e Ndërgjegjes Kozmike të Epokës së Re mund të shihet se burojnë nga depozita masonike e mësimeve ezoterike dhe okulte dhe doktrinave Luciferiane.

Tema e Masonerisë është në fakt një shembull i përsosur, që na ndihmon të kuptojmë injorancën e masave ndaj kësaj Axhende Luciferiane, sepse ne mund të shikojmë të gjitha shtresat, nivelet dhe shkallët e Masonerisë dhe të kuptojmë se si gradat e nivelit më të ulët të hyrjes janë me të vërtetë mjaft. i pavëmendshëm ndaj zemrës së sistemit të besimit satanik që po e shtyn të gjithë. Ata sinqerisht thjesht besojnë se janë pjesë e një lloj vëllazërie bamirëse altruiste, dhe në të njëjtën kohë, aty në ato faza u paraqiten me një shpjegim të cekët dhe të zbrazët të simbolizmit dhe ritualeve që ata janë. duke marrë pjesë. Megjithatë, nëse ata vazhdojnë të përparojnë në "Vëllazëria", ata përfundimisht do të bëhen të ditur për kuptimet më të thella të Ritit.

Tani nëse mund ta njohim lehtësisht Evolucioni Darvinian si një Doktrinë Luciferiane e ripaketuar, e maskuar me maskën e Shkencës Humaniste,

atëherë, kur meditohet Kozmologjia e rreme e Kopernikanizmit, Teoria e Gravitetit duket gjithashtu të jetë një tjetër nga këto koncepte të lashta mistike që është ripaketuar dhe rifutur tek masat e padyshimta si një fakt shkencor. Në fund të fundit, graviteti nuk mësohet thjesht të jetë forca tërheqëse e prodhuar nga koleksione të mëdha të masës si yjet, planetët dhe hënat etj... Por, është gjithashtu forca që pretendohet se ka tërhequr të gjithë këta trupa qiellorë së bashku në vendin e parë. Sipas Teorisë së Big Bang-ut, nga Singulariteti origjinal doli e gjithë materia fizike që tani po hidhet vazhdimisht jashtë në çdo drejtim në një univers gjithnjë në zgjerim. Por kjo lëndë nga The Singularity atëherë duhej të fillonte të formonte të gjitha grimcat elementare.

Përralla e Big Bang-ut

Në Modelin e Big Bang-ut të Universit, Universi, pasi Singulariteti goditi "densitetin e pafund" të madhësisë së protonit, u mbush në mënyrë homogjene dhe izotropike me një densitet shumë të lartë energjie dhe temperatura dhe presione të mëdha që po zgjeroheshin shumë shpejt në një mënyrë të RASTËSISHME dhe ftohje afërsisht në dhjetë deri në dhjetë deri në sekondat e 37-të të zgjerimit. Pastaj një tranzicion fazor shkaktoi një inflacion kozmik gjatë të cilit Universi u rrit në mënyrë eksponenciale pasi inflacioni fillestar u ndal. Universi atëherë përbëhej nga plazma e gluonit si dhe nga të gjitha grimcat e tjera elementare. Temperaturat ishin shumë të larta, por lëvizjet e rastësishme të grimcave ishin me shpejtësi relativiste dhe u shfaqën çifte grimcë-antigrimcë. Dhe të gjitha llojet e grimcave po krijoheshin dhe shkatërroheshin vazhdimisht në përplasje në një moment në një reagim të panjohur të quajtur bariogjenezë. Në kozmologjinë fizike, bariogjeneza është procesi fizik hipotetik që ndodhi gjatë universit të hershëm që prodhoi asimetri barionike, pra çekuilibër të materies (barioneve) dhe antimateries (antibarioneve) në universin e vëzhguar. Duke arritur në një tepricë shumë të vogël të kuarkeve dhe leptoneve mbi anti-kuarke dhe anti-leptone të rendit të një pjese për 30 milionë, kjo rezultoi në një mbizotërim të materies mbi antimateries në universin aktual.

Pashmangshmëria e rastësishme Tautologjike Ekzistenciale

Natyrisht, e gjithë historia është një marrëzi e pastër, por nëse futni mjaft fjalë mbresëlënëse, atëherë mund ta bëni atë të duket vërtet shkencore. Së pari, grimcat elementare formohen në një farë mënyre magjike në të gjithë nxehtësinë dhe presionin e imagjinuar, dhe nga një shpërthim që ndodh pa arsye në një mënyrë RASTËSISHME. Si bashkohet, formohet ose bën diçka që pasqyron një mekanizëm të renditur nëse i gjithë sistemi është i rastësishëm? Asnjë nga këto nuk ka kuptim. Pastaj ato grimca disi formohen në atome, dhe pastaj atomet formohen në elemente të ndryshme periodike, dhe pastaj elementet në molekula, e kështu me radhë e kështu me radhë. Dhe prapëseprapë, e gjithë gjëja thuhet se është produkt i rastësisë së verbër, të rastësishme, të pakuptimtë, të pakuptimtë, të paqëllimshme, kaotike.

Megjithatë, në të njëjtën kohë, ata thonë se thjesht nuk mund të ishte ndryshe. Duhej të ishte pikërisht kështu, sepse ishte kështu, një lloj Pashmangshmërie Tautologjike Ekzistenciale e Rastit:

"Qëllimi është që nuk ka qëllim dhe pikërisht për këtë duhej të ndodhte. Kupto?"

Jo nuk kuptoj.

"Nuk mund të ndodhte ndryshe sepse duhet të ketë ndodhur ashtu siç themi ne. Kupto?"

Jo, nuk kuptoj.

"Kjo ndodhi kështu sepse ndodhi kështu dhe kështu nuk mund të ndodhte ndryshe. Kupto?"

Jo, nuk e bëj. Nuk e bëj sepse ata pohojnë se rastësia, kaosi dhe rastësia sundon Universin, dhe nëse nga ana tjetër e gojës së tyre ata pohojnë një gamë të gjerë ligjesh, parimesh, atributesh, vetish

dhe mekanizmi jashtëzakonisht te renditur mirë që nuk mund të jetë rastësia e produktit, kaosi dhe rastësia.

Askush nuk e kupton këtë sepse është ekzistenciale jokoherente, e pakuptimta llafazane nga shkenca. Duket sikur Astrofizika dhe Kozmologjia po përpiqen të testojnë publikun e gjerë për të parë se sa paradoks dhe dërdëllitje do të pranojnë derisa t'u shpëlahet plotësisht truri. Më tej, këta Priftërinj Scientism lejojnë çdo përfundim përderisa ai NUK çon në përfundimin e qartë të idesë së një Agjencie Inteligjente Kauzale (Zoti) pas realitetit. Është kaq e qartë se çfarë po bëjnë ata me këtë mashtrim të Big Bang.
Dhe përsëri, Teoria e Shpërthimit të Madh ishte e nevojshme për fantazinë tjetër të Frimasonëve: Evolucioni.

"G" është gjithashtu për gravitetin, përveç Evolucionit, Heliocentrizmit, Shpërthimit te Madh,Yjeve dhe "Planeteve" (Yjeve endacake)

Evolucioni është pa diskutim një sistem besimi mistik në thelbin e tij. Pra, tani në kontekstin e Tokës së Sheshtë, dhe me njohurinë se NASA është në thelb një institucion mason, është interesante të mendohet se "G" masonike në mes të Sheshit Masonik dhe Busullit do të thotë gjithashtu "Gravity". Dhe rrjedh, domosdoshmërisht, se si Evolucioni është i varur nga graviteti, ku si Evolucioni ashtu edhe Graviteti varen nga ideja e heliocentrizmit, të cilat të gjitha përbëjnë, pak a shumë, një version të zbehur, pseudo-shkencor dhe të materializuar të asaj që janë me të vërtetë urdhërime okulte mistike.

Kurorëzimi, natyrisht, i gjithë kësaj është ideja se elementët e ndryshëm të Sistemit Kozmologjik Kopernikan janë të gjitha pjesë të misticizmit dhe okultizmit të lashtë, të cilat janë ripaketuar me një estetikë moderne shkencore, si dhe me një pseudo- rimeso empirike. Dhe kështu, unë gjithashtu dyshoj se e gjithë tema e Planeteve është, përsëri, thjesht një shembull tjetër i të njëjtit lloj gjëje.

Dhe, Miti i Gravitetit shpjegon historinë prapa këtij mashtrimi heliocentrik masonik, si dhe mashtrimin matematikor të përfshirë në kryerjen e tij.

Gravimeter and Ring Laser Gyroscope Measurements in the Context of The Earth's Natural Land Mass Movement in a VastField of Oceanic Fluid

If we assume that The Earth is an immense circular disc, and that it is primarily composed of ocean water on its surface, then we can easily imagine that the relatively smaller land mass of The Earth would, at times, be literally free floating on the water of the oceans. Afterall, even Heliocentrist assert that The Earth is composed of 71 percent water.

It may be the case that certain land masses are anchored to the subterranean depths of The Earth, but it is no stretch of the imagination to consider that great land masses, and even whole continents, may, essentially, be "floating" on the Earth's oceans.

The Heliocentrist's Pangaea

Consider The Heliocentrist's beloved Pangea:

Theoretically, Pangaea was a supercontinent that existed during the late Paleozoic and early Mesozoic eras. It assembled from earlier continental units during the Carboniferous approximately 335 million years ago, and began to break apart about 200 million years ago, at the end of the Triassic and beginning of the Jurassic. In contrast to the present Earth and its distribution of continental mass, Pangaea was centered on the Equator and surrounded by

the super ocean Panthalassa and the Paleo-Tethys and subsequent Tethys Oceans. Pangaea is the most recent supercontinent to have existed and the first to be reconstructed by geologists.

And so, even The Heliocentrist admit that The Earth's land mass had literally "ripped from its moorings", as it were, and broke up and drifted apart, each piece from each other piece, to create the world as we know it.

And if this were so, both Gravitational measurements, as well as the official Earth rotational measurements would be the result of this basic relationship between land and water.

And so, this entire Heliocentric crusade to conform all their Gravimeter and Ring Laser Gyroscope measurements to the ideas of Gravity and Axio-Rotation are suddenly null and void. Absolutely, everything they are inferring to be the result of Gravity and Rotation can just as easily be interpreted as the result of "wobble" and fluid dynamic related perturbations from the Earth's dry land mass position over water. Afterall, all these reading they are getting are down on the microscale, which suggest they are detecting the current natural movement of The Earth's land mass over water.

Have you ever watched a large oil tanker on the water? It has a subtle rise and fall, a wobble, even torsion and spin from ocean currents. It moves. If you placed a Gravimeter and Ring Laser Gyroscope on it, you would get various IGSN71 Measurements and Ring Laser Gyroscope readings. Now what if that oil tanker was as the size of North America? Now, if you placed a Gravimeter and Ring Laser Gyroscope on it, you would get various IGSN71 Measurements and Ring Laser Gyroscope readings approaching those expected and predicted by The Heliocentric Theory of Gravity.

Absolutely everything in Gravimeter and Ring Laser Gyroscope measurement reading would be skewed by land mass that was not firmly anchored at the subterranean depths below the oceans. And so, to jump to the conclusion that all Gravimetry and Ring Laser Gyroscope readings are

magically some kind of conformation of a spinning ball Earth that has invisible Gravitons is a huge leap of Faith. And more accurately, it a great example of Measurement Interpretation Bias and Experimental Confirmation Bias.

It's bad science.

Its pseudoscience skewed by a relentless fetish to filter and interpret all data through the myopic lens of The Heliocentric Theory.

Even the alleged "wobble" of Polaris would make sense if The Earth's land mass was, as various points where astronomical readings were executed, "wobbling" on the Earth's oceans. It would be ever so slight, EXACTY like the readings Astronomers are getting, The difference, of course, is that the CAUSE of the readings would be from floating land mass on a flat oceanic disc, as oppose to a spinning and orbiting space ball.

The Folly of Michael Toon Clown Prince of Gravity: IGSN71 Measurement Interpretation Bias

The IGSN71 measurements that Michael Toon raves about are based upon the assumption that Gravity is real, and therefore, Michael Toon's entire Flat Earth Gravity Challenge contest is based upon the submitter obeying Scientism protocols, and Scientism rules, in order to arrive at Scientism conclusions. Essentially, Michael Toon et alia assume that Gravity exits in order to confirm Gravity exits, while using leveraged Scientism tests to confirm their bias. And they want the contestant to waltz into their methodological trap so that they can reject any data that does not subscribe to the unscientific methodologies and pseudo-scientific technologies that they use.

Michael Toon's entire Flat Earth Gravity Challenge contest is a desperately biased attempt at railroading the contestant into the forgone conclusion that Gravity is measured by Gravimeter readings. It is a Scientism snare set for the unsuspecting participant.

This is one reason why I did not take his contest parameters seriously…because they are methodologically biased and only applicable if you already assume Gravity exits and that testing for Gravity with Gravimeters is a viable means of confirming Gravity's existence, which after researching Gravimetry, and it's internal inconsistencies, interpolative assumptions, and interpretive inaccuracies, I do not believe.

Gravimetry is a study in Measurement Interpretation Bias and Experimental Confirmation Bias since regardless of what vibrations or movements Gravimeters measure, those who read the measurements will simply label the reading as a confirmation of Gravity because that is what they are testing for. If they were testing for electromagnetism, then they would catalogue their readings as confirmation electromagnetism, etc… Measurement Interpretation Bias and Experimental Confirmation Bias is a huge problem amongst those studying Gravity because the stakes are so high for them to demonstrate Gravity exist, they get sloppy in their analysis and refuse to consider any other cause for their test results other than Gravity.

Defying Gravity: G-Force, Mass, and Centrifugal Force

I have been trying to wake people up to do their own research and thinking instead of trusting the Scientism Priests to think for them. One thing I often here is, "If Gravity is a real force, how come it arbitrary can hold down trillions of tons of ocean water and yet something as light as Helium Balloon floats up effortlessly, Defying Gravity?" (Yeah, I know, that's a song from The Smash Hit Musical, Wicked...the pun was intended.)

And why is Gravity so arbitrary and nonsensical when you actually think about it. Do the Earth's oceans form a massive weight of their own when the trillions of ocean drops are together, causing The Earth Gravity to hold it down like a massively heavy weight? But then a little tiny drop of water should float up like a balloon since it weighs a fraction of what a balloon weighs, so it cannot be a weight issue. So, what gives? Well, the answer is a lot easier than you would imagine. The answer is:

Gravity is an illusionary, fictional fantasy from ancient Hermetic and Kabbalistic Occultism, and nothing more. Electromagnetics, Density, and Buoyancy are all that is necessary to explain all Newtonian physical properties and actions.

Those Sun Worshipping Heliocentrists, ignorant of the properties of Mass, Weight, Inertia, Centripetal and Centrifugal Forces, G-FORCE, and Angular Velocity and the Vector Analysis of these properties often state that the Earth's rotation, at approximately 1000 mph, which is nothing more than an ancient occult fantasy.

And of course, this 1000 mph rotational speed was chosen because, allegedly, it would be too slow, in relation to the total theoretical mass of The Earth, for any on the Earth to feel it's Centrifugal Rotational Vector. In Newtonian mechanics, the centrifugal force is an inertial force (also called a "fictitious" or "pseudo" force) directed away from the axis of rotation that appears to act on all objects when viewed in a rotating frame of reference.

Hence, the ignorant masses believe this fraudulent explanation for why we not feel any or this rotation because they have been brainwashed to believe that the Earth is a massive spinning ball which would seem to be rotating quite slowly if it were spinning at 1000 mph with such a huge mass. But these magically fictitious explanations, coming from the Masonic cartels of epistemologically radical empiricism fail the test of actual science.

To begin, Freemasonic Scientism, commonly known as, "Newtonian Mechanics," tells us that Gravity is a magnetic force keeping us and all on the Earth. so, let's go with this "science", even though I have little respect for it, as in many what passes for "science" these days are theories, just as it is with Gravitation Theory.

We are told a man called Sir Isaac Gravity-is-A-Lie Newton discovered Gravity and what its effects are after seeing an apple fall from a tree. This is a simplistic fairytale for children, like Snow White and the poisonous apple, etc…

Mass And G-Force Destroys Newton's Gravity Theory

The gravitational force equivalent, or, more commonly, g-force, is a measurement of the type of force per unit mass – typically acceleration – that causes a perception of weight, with a g-force of 1 g (not gram in mass measurement) equal to the conventional value of gravitational acceleration on Earth, g, of about 9.8 m/s2.

So, let's go with Newton's theory and that's all it is, a theory, and no empirical confirmation, whatsoever, exists to this day to conclusively confirm Gravity. Now Newton's theory states basically that we are stuck to Earth due to a magnetic force or an attraction of sorts? Now this would make sense if we didn't have mass or g-force on Earth, yes that's right mass and g-force destroys Newton's Gravity theory.

It is simple enough to confirm Gravity is not keeping us on the Earth, two very simple experiments with one basic magnet will solve this for you:

1) **Experiment one:** Get a magnet of a sensible size and place some objects onto a table, start with something small like paper clips, and gradually work up in mass to something heavy like a bike. So, a very simple experiment anyone can do at home. Now place the magnet over

the paper clip, you will see the magnet drags it off the table with ease. It acts as a very strong "gravitational force".

Then work your way along from smaller, lighter items to larger, heavy items and you will find out one thing. The magnetic field is far more powerful on smaller items of less mass, and the heavier higher mass items are barely affected by the magnetic field, as in they won't be lifted from the table? The larger items will not lift off the table with the magnet.

2) **Experiment two:** Find a large open area such as a field and take the same items that you have used for the table experiment with you. Now start with the heavier higher mass items and stick them to the magnet. Now hold the magnet in your hand and spin around as fast as you can, you will witness the heavier higher mass items will easily drop off the magnet even at slow speeds? Yet the lighter items of less mass, such as a paper clips, will stick to the magnet regardless of how fast you spin.

Analysis:

So, by doing this simple experiment, you will have discovered that items of higher mass are much easier to lose "gravitational attraction" than items of lesser mass? And yet, with Gravity, they are saying the opposite. The denser and larger the mass, the more attractive you have, which contradicts all principles of observable magnetism.

And so, we have a mythical force that disobeys all known principles of science as the chief connective tissue in The Cosmos.

Seeing any red flags, yet?

Now, we turn this experiment to Earth, and we apply the same to the things around us, bearing in mind the Earth is apparently spinning at the relatively high speed of 1000 mph, thus hampering the downward force of Gravity because of the centrifugal force created by this assumed rotation, we end up with the Earth where surely the smaller items on Earth should be

nearly impossible to lift due to the gravitational pull of The Earth, in the same way as paperclips stick tighter to a rotating magnet than a huge anvil would.

So, bearing in mind these two simple and repeatable experiments, and the supposed "Laws of Gravity", what items should be easier to pull away from the Gravity of The Earth? The heavier, higher mass items, at least according to the principles of magnetism, surely should defy the gravitation-force (g-force) of The Earth and go flying off The Earth in the same way heavier, higher mass objects fly away from a rotating magnet.

So why is it that Gravity is not acting as it should? The smaller items on Earth should be nearly impossible to lift due to gravitational pull, and the larger items with greater mass should be easy to lift. And yet, as we see the opposite is the case. Recall, that the larger the mass, the stronger the g-force should be with the Theory of Gravity, and yet what we observe is the smaller the mass, the stronger the g-force is, as in paperclips sticking to a rotating magnet, and larger sphere of metal flying off.

One More Example: G-Force, Mass, and Centrifugal Force

Let's look at a bike wheel in rotation in order to simulate gravitational pull, or g-force. We turn the bike upside down and we place water on the back wheel, and then turn the pedals and watch as the water is propelled/displaced from the tire. Now, try this with heavier items such as mud/soil, and you will see it leaves the tire even faster as it has more mass and is propelled by centrifugal force created by the spinning wheel.

And so, what we find is that we cannot have a downward g-force working indiscriminately with mass, or else lighter objects would be clinging to the Earth far more than the large bodies of mass, like the oceans. If we adhere to the theory of Gravity, the much heavier massed oceans should be flying off like the clumps of mud on a spinning bicycle wheel.

In other words, the larger and heavier the object on Earth, the less effect the g-force would have on it. You can't have it both ways. If we go with the immense pull of Gravity, so immense as to hold trillions of tons of ocean to spinning ball, then it would be impossible to lift even a common household hammer. With each swing of the hammer, you would be battling g-force strong enough to hold The Pacific Ocean tight to a spinning ball, and hence, you would never be able to lift it.

And of course, as we see in the principles of magnetism, the heavier, denser, greater massed object is harder attract with a magnet, while The Theory of Gravity states that it is actually by virtue of the heavier, denser object's greater mass, that it is easier to attract, which again, defies all logic and any principles of attraction known to science.

The Catch-22 of Gravitational Pull

What is a Catch-22? The Collins English Dictionary defines a Catch-22 as follows:

"If you describe a situation as a catch-22, you mean it is an impossible situation because you cannot do one thing until you do another thing, but you cannot do the second thing until you do the first thing."

And so, sure, if you made a magnet the size of Mount Everest, then you could attract far heavier, denser, greater massed objects, but then we are left with a Catch-22 of Gravitational Pull:

Absolutely nothing would be able to escape Gravity's attractive pull, and so tiny kittens would be plastered to the ground suffocating from the oppressive g-force pull on their lungs, and yet weak enough to allow you to use a hammer.

You can't have it both ways.

Introduction

How can it be that for over 5,000 years, as far back as modern history allows us, that nearly every single culture on Earth believed the land we all have lived upon since our birth was known to be flat, motionless, and the center of just one creation we call a universe? Nearly all ancient cultures previous to the current Roman Dynasty (310 AD – present) held Flat Earth Theo-Cosmological belief systems. I am not just speaking about one or two civilizations of our common past, but the cultures of most civilizations covering thousands of years, across all lands and races. From the Ancient Chinese, with their Ying/Yang symbolism of the dance of the Sun and Moon in circle above, to the Indian Vedic's, Buddhists, Sumerians, Chaldeans, Babylonians, Egyptians, Ancient Hebrews, Greeks and Nordic Vikings.

All had some form of geocentric, Flat Earth, Theo-Cosmological system. That all Stars, the Sun, and the Moon were centered around our Earth signified the cosmic importance of humans in the big picture of our universal make-up, and the Earth was the center for all of this creation.

The word "world" comes from the energy vortex created by the electromagnetic battery of our Flat Earth connected through the North Pole and Antarctic Circle's positive and negative charges, the salt in the ocean providing the electrolyte catalyst to charge Earth's plasma battery field. We are all contained within a toroidal plasma field of perpetual regeneration, inside a closed energy system vortex which causes a "whirling" action, hence the word "whirled" or "world".

Sunrise…Sunset: The Misapplication of Language to Shape a New World View

And, we call solar movements "sunrise" and "sunset", according to the Heliocentric Model, which are grossly incorrect terms that have not been

corrected for over 500 years by the common man, academia, clergy, or any in the science community. Why? One possible reason was when Heliocentrism was introduced to the public education systems of the Western world, most worked and lived outdoors. The Sun appears to rise and set in its apparent motion. And yet, upon closer scrutiny, one can both observe and measure that The Sun is actually advancing towards the observer from the horizon, as well as receding away from the observer towards the horizon on flat plane, and only appears to rise or set in strict adherence to the principles of optics concerning angular compression on the horizon of flat plane.

Nevertheless, instinctively, even uneducated peasants knew that The Earth was still and motionless, and that the Sun was moving and not The Earth, in spite of the apparent rising and setting of The Sun. And if anyone tried to sell them on the idea that the Sun was not moving while The Earth was spinning and orbiting The Sun, they would have been met with complete disbelief, incredulity, and derided for sheer stupidity, as any ruling governance who might put forth such an absurdity lost all credibility in their eyes.

So what would be the correct terms for a Flat Earth movement of the Sun instead of "Sunrise" and "Sunset"…Suntransit? Sunadvancement? Sunrecession? Should we allow misapplied terms to stick just because they are catchy and concise? Language shapes thought, and thoughts shape perceptions. And that's is exactly how The Heliocentric Model gained traction: the misapplication of language to shape a new world view.

For over the past 500 years, most world education systems continue to this day to teach little-to-none of Flat Earth history and Cosmology connecting to this rich history of all our common pasts. Why would they not want us to know the narrative of our existence where the Sun, the Moon, and the Stars were placed in the sky above to help guide and assist us? Why is there this conspicuously massive omission in taught history of The Enclosed Cosmological Model? If it is archaic history, then teach it as such. But, it has

been completely scrubbed from the historical record, apart from being mocked and ridiculed by all institution of both lower and higher learning.

Ask yourself, why? Thousands of classes on Greek Mythology are readily available to anyone in every country. You can learn about Zeus's Lightning Bolts, the One-Eyed Cyclops, Medusa's snake filled hair, and just about any other imaginary and mythological creature and idea possible, but never about The Flat Earth Model and the mathematical mechanics behind it. If it's a crazy myth, then simply throw it into Mythology 101 at your local college. But no, this never happens. Again, why? If it is as crazy as Greek Mythology, then just say so and teach it. But no, this does not happen.

Contrarily, what would anyone gain by creating a Heliocentric myth that states we should feel insignificant, small, and just one of billions, and billions, and billions of other planets, stars, and potential forms of life? The answer is short: Power. If you were in power, would you want the minions one day to take over your power base that has been created over hundreds, if not thousands of years? Would it not benefit you, as tyrant, to teach a version of The Cosmos which convinces all who are under your subjugation to feel powerless, insignificant, and meaningless as they drift in a vast, chaotic, and hostile Cosmos, where their only hope of survival was to obey you and submit to your edicts and laws??

The fact is that the self-appointed powers in charge of this world employ propaganda, monetary policy, organized religion, and infotainment to mesmerized the mases. They wish to keep us fully disempowered as to our highest potential by severing us from any knowledge that we were literally created to exits at the epicenter of God's Creation.

The Center of The Spider's Web

From Copernicus, all the way to the creation of The Big Bang Theory by Jesuit/Catholic priest, Father George Lemaitre, The Vatican and the Society of Jesus (Jesuits) have had, and still to this day, have a vast and

sweeping influence in all things related to Astronomy, Astrophysics, and space observation. In fact, it was Father George Lamaitre, not Albert Einstein, who in 1922 created the scientific "provable" science behind our current Pantheistic Evolutionary explanation of how our world came to be. Vatican control exists at the center of the spider's web, without a doubt.

The epistemological cartels behind the idea of Gravity, such as The Royal Society of London, as well as other The Masonic fraternities, have a vested interest in Gravity existing as the sole foundational connective tissue and explanation for The Heliocentric Theory, The Big Bang Theory, Evolutionary Theory, as well as their agenda for the certain possibility of alien life.

All their occult science ideologies rest upon the idea that Gravity is real. And so, all institutions of higher learning, private businesses, think tanks, corporations, Hollywood, NASA, etc… under the influence and pressure of epistemological cartels, such as The Royal Society of London, are only funded if they confirm that Gravity is real for the benefit of the agendas of The Scientific Autocracy that funds them.

And ***The Myth of Gravity*** explains the backstory behind this Masonic Heliocentric deception., as well as the mathematical trickery involved in perpetrating it.

Forward

Everything said about the formation of Stars, Nebulae, Galaxies, etc... is inseparable from the occult agenda to preach Cosmic Evolution. Isn't it conspicuously uncanny and impossibly coincidental that all the supposedly scientific components of Modern Astrophysics and Cosmology originate in ancient occult Hermeticism and Kabbalistic occult ideologies? And through the perspective of these occult ideologies, and this occult cosmic evolutionary agenda, various Astro-Evolutionary and Cosmological components are absolutely necessary in order to even attempt to teach The Big Bang as a plausible scientific theory:

First, you need a vast universe: Copernican Cosmology from the 15th Century Occult Vatican Jesuits

Second, you need the idea of particles that compress through nuclear fusion to create Stars: Occult Kabbalistic Atomism

Third, you need the idea of particles magically and gradually pulling themselves together: The Satanic Freemason invented, and occult idea known as, "Gravity".

Fourth, you need the idea of compressed matter magically erupting in a nuclear explosion to create Stars: The Occult Kabbalistic idea of The Quantum Realm and Nuclear Physics

Every single one of these Cosmic Evolutionary components find their antecedents in ancient occult Babylonian Hermeticism and Kabbalah. And so, one is forced to ask the question:

"Is the story we have been told about the evolution of the Universe, and how everything formed and took shape in it, based upon

real empirical science, or is it merely a fantasy that was conjured up by repackaging ancient occultism in order to advance forward as a Trojan Horse of what we all thought was legitimate and empirical Cosmology and Astrophysics?"

After all, what are the odds that that ancient sandal wearing, and often illiterate, occult priests knew absolutely everything that modern Astrophysics are just now discovering today, using the cutting edge of technology to perform exploration and research, with the best minds working around the clock, and drawing from thousands of years of observational data and theory to piece the Cosmic Evolution story together for us...but the occult priest who got everything exactly right just by crazy, crazy, crazy chance?

Think about it... Modern Cosmological science and Astrophysics is merely repackaged occultism.

You do not live on a magic, spinning spaceship in an immense cold vacuum. Open your eyes and you will see that where you live is just as you see it. The Star Trek version of The Cosmos is just that...a science fiction fantasy created primarily by Kabbalah worshipping Freemasons.

Oh, that's right the creator of Star Trek, Gene Roddenberry, was a Freemason.

Oh, that's right, just about every astronaut was a Freemason or had some verifiable Masonic affiliation.

Oh, that's right, the creators of NASA were occultists:

1. Jack Parsons of JPL – Occultist, Black Magician, Satanist, Head of Ordo Templi Orientis California Agape Lodge

2. Aleister Crowley – 33rd degree freemason, Leader of Ordo Templi Orientis, Black Magician, Satanist, The Beast '666'

3. L. Ron Hubbard – Mass Mind Controller, Black Magician, Satanist, Founder of The Church of Scientology Cult

4. Werner von Braun – Ex-NAZI director of the German V-2 Rocket program and recruited into the U.S. under Operation Paperclip. Quite likely he was the most normal of the bunch.

4. Walt Disney – Occultist, Mass Mind Controller, Black Magician, Illuminati-Pedophile, Freemason and founder of The Order DeMolay

Is it clear now?

The Geometrical Kabbalahs of John Dee and Johannes Kepler: The Hebrew Tradition and the Mathematical Study of Nature

Renaissance Neoplatonism was marked by a preoccupation with restoring ancient wisdom as a foundation for present and future knowledge. Although its adherents often had divergent and idiosyncratic agendas, there was a consistent emphasis on developing a Christian world view grounded in knowledge of the harmony of God's creation.

The Renaissance Neoplatonic synthesis of Christianity and ancient philosophy was significantly reinforced by the discovery of the Kabbalah, the Jewish esoteric tradition. The Kabbalah taught a descending order of creation from the perfection of God to the imperfect material world. The letters of the Hebrew alphabet, which are also numbers, were the basic units of creation.

The notions of creation by descent and numerical harmonies indicated similarities between the Kabbalah and the ideas of Pythagoras and of Plato. The correspondences were believed to demonstrate that both traditions

shared a common origin, i.e., divine revelation to Adam, Abraham, or Moses. Renaissance Christians, like Pico della Mirandola, Johannes Reuchlin, and Franciscus Georgius, looked to the Jewish mystical tradition in their attempts to rediscover the wisdom behind the Hebrew scriptures. They also viewed the Kabbalah as the sacred original from which the pagan philosophers derived their knowledge.

What Could The Ancients Know?

We often hear Atheists assert that The Biblical writers were not scientists, and thus, their understanding of Cosmology and The Earth's Topology was that of naive and uneducated peasants and fishermen who ran around in the ancient desert spouting magical stories of Nephilim, being swallowed by a giant whale, Devils and Demons, a parting Red Sea, burning bushes, walking on water, and a Messiah who would save Mankind.

In the minds of such Atheists, The Earth's shape was simply beyond the knowledge of ancient civilizations, and that is why we cannot trust The Genesis account of Creation, nor then Biblical view of an Enclosed Cosmology. The core notion here is that the ancient Biblical figures lived in an age far too ancient to have the correct modern Copernican Model that modern science worships today. In this view, modern Astronomy and modern Astrophysics are the supreme authority on the shape of The Earth and its origins.

Oddly enough, likewise, we hear from Biblical scholars, who would embrace all the "magical stories" that the Biblical writers had chronicled, and yet who still would assert that the ancient Biblical figures lived in an age far too ancient to have the correct modern Copernican Model that modern science worships today. It is the very same view that Atheists take regarding Cosmology. It is that view that ancient Biblical figures were just a bunch of ignorant peasants with no scientific understanding at all. And this view is largely predicated upon the ancient times in which The Bible was written. The

idea is that it was just too long ago for anyone to speak with authority concerning the shape of The Earth and its position in the Cosmos.

The Kabbalah

And yet, other Hebrew Kabbalic and Alchemical text were produced in ancient times that spoke directly of a Heliocentric Model with a Big Bang origins to The Cosmos. It as though, The Heliocentric Model was alive and well in ancient times, and even taught by Pythagoras, but The Biblical writers were somehow the scientific illiterate idiots who just did not get the Kabbalic memo.

Pythagoras of Samos (c. 570 – c. 495 BCE) was an ancient Ionian Greek philosopher and the eponymous founder of Pythagoreanism. His political and religious teachings were well known in Magna Graecia and influenced the philosophies of Plato, Aristotle, and, through them, Western philosophy. And, Pythagoras was teaching the Heliocentric Model in the same age as The Book of Genesis was being written, and so the whole argument that because the Biblical writers were writing in such an ancient times, they could not understand the true shape of The Earth crashes down to the ground as an obvious ruse to delegitimatize all that the authors of The Book of Genesis had said.

Additionally every ancient culture had some kind of map, pottery design, or parietal art, including petroglyphs or engravings, which exhibited some form of The Enclosed Cosmological System, in one way or another. In other words, all the ancient contemporaries to The Book of Genesis authors were already teaching that the Earth is a plane in an enclosed system with a Firmament. Scholars have identified three literary traditions in Genesis, as in Deuteronomy, usually identified as the Yahwist, Elohist, and Priestly strains. The Yahwist strain, so called because it used the name Yahweh (Jehovah) for God, is a Judaean rendition of the sacred story, perhaps written as early as 950 BCE. The Elohist strain, which designates God as Elohim, is traceable to

the northern kingdom of Israel and was written 900–700 BCE. And so, Pythagoras of Samos (c. 570 – c. 495 BCE), was not far behind, in terms of chronology, with his teachings about a Heliocentric Model.

So much for the "ancient times" argument for denying Biblical authors their knowledge of the shape and position of The Earth…

Preface

"When you have eliminated all which is impossible, then whatever remains, however improbable, must be the truth."

Mathematical models based on blind faith in input data we've not verified is a logical fallacy. If we have blind faith in a religion, we call Astrophysics, it should be fairly obvious that the very system that we seek validation from is in question. Hence, we are forced to look elsewhere. We are forced to look to our own understanding and experimentation to validate what we discern to be true or false.

What Are The Odds?

1. Perfectly aligned, concentric Star Trails from time lapse photography can happened on a spinning ball hurtling at millions of mph at contrary angles through space. The stars revolve 360° in 24 hours in an anti-clockwise fashion around the north polar star in the northern hemisphere, and clockwise around the southern star in the southern hemisphere. Photographers take photos with very long shutter speeds to show this effect.
2. Absence of Stella Parallax: How is there no stellar parallax, especially considering that all the other stars and galaxies are revolving around each other and the Earth as well. The sky must be a right mess! Each new day must bring a brand new unique constellation in the sky at night with some new stars getting nearer so they can be seen with the naked eye and some traveling further away and disappearing never to return for thousands or millions of years. Before we move on, this lack of stellar parallax is the reason why advocates of the Heliocentric

theory give the unbelievably enormous distances the heavenly bodies must be from Earth. They can't measure it! The Stars must be thousands and millions of light years away (with the Milky Way 100,000 light years across, 1 light year being 9.46 trillion kilometers!) because there is no detectable stellar parallax; otherwise the Heliocentric theory would be definitely wrong.

3. The Moon always shows the same face.
4. Polaris never moves.
5. The atmosphere is perfect to support life and no other life has ever been found in the Universe.
6. The Constellations never change shape and are forever recycling with each season.
7. The Earth exhibits zero curvature from any altitude and yet it supposed to be spherical
8. The Moon and The Sun miraculously appear to be the same size because the Sun's diameter is coincidentally 400 times larger than that of the Moon, while The Sun is also coincidentally 400 times farther from Earth
9. Speed of the Earth's orbit and the axis tilt both have 66.6 in them, which is the Number of the Beast…what are the odds?

We see too far!!!!!

…just one insanely improbably coincidence after another to create this Heliocentric Model. And yet all of this is said to be the result of a random, blind, chaotic, meaningless chance. And people, unquestioningly, buy it. This is very definition of gullible.

Manipulated Data

And it does not matter whether or not the fossil record is consistent with "evolutionary theory", any more than it matter in physics that Newton's

theory is consistent with everyday experience. And it doesn't matter if NASA's or Space X supposed technological advances and technical prowess are accepted as genuine into the mind-set of the public through constant insidious brainwashing when the "data" can easily be controlled and manipulated to fit any agenda.

When you understand that "space" data comes mainly from one source, delivered by a few corrupt agencies, and you get caught up in a loop wondering, "Why would they lie?", and start having a hard time accepting possible reasons why (cognitive dissonance), then you need to ask a different question:

Why Would They Tell Us The Truth?...More So When Our Ignorance is Their Power.

What isn't healthy is living happily in a state of indoctrination and being so completely brainwashed that you'll not even consider looking into whether what you've been taught in life is truth, and instead, blindly accepting a set of beliefs, uncritically. We need to understand the level of DECEPTION we've all been bathing in since birth. We are all born into the deception. We are all living it at this very moment.

If any are waiting for the government, the media, or the educational system to tell you that the Earth is flat, you are looking in the wrong place and haven't figured out how this "Flat Realm" is ruled yet.

Being ignorant is not so much a shame, as being unwilling to question your reality and learn.

The Heliocentric Dream...Because You Have to Be Asleep to Believe It!

"I am the charlatan, the most self-deceived of all people.

They call me The Astrophysicist.

Allow me to impart a little fairy tale to you...

Once upon a time, there was this forever banging and bouncy ball magic Universe, so big nobody has ever seen the farthest edge of it! In fact, we have zero empirical evidence of this imaginary mythical Outer Space Universe, but we blindly BELIEVE in this fantasy model, anyway, because our Kindergarten teachers told us it was true. And everyone knows Kindergarten teachers are really good at Astrophysics...

And we blindly BELIEVE in magical, invisible, untestable, Hermetic Black Magic, occult-based cartoon ideas like Evolving Expanding Space-Time, Einsteinian Relativity, Time Dilation, The Planck Scale, Curved Space, "Warp Factor Five, Scotty!", Bendy Curving Oceans, Black Holes, Magic Gravity, Magic Gravitational Waves, Dark Matter, Dark Energy, The Dark Knight as Batman, and ***The Dark of The Moon*** Transformers film. Essentially, if you have seen it in a Marvel Studios Superhero Movie, it must be true!

The way we see it is that if no person can test or corroborate our results, since everything we make up is untestable science fiction space nonsense, and so far away in imaginary outer space that no person can even investigate all our unfalsifiable science-fiction claims, we remain aloof, hidden, and shrouded in mystery. The reason we enshroud ourselves as Secret Societies now becomes perfectly clear.

Meanwhile, we avoid dwelling on testing the Topography of The Earth because even though we only have fantasies about how The Earth came into existence, we prefer our fantasy explanations to the hard, cold fact that The Earth is the only empirical thing we have in our model. We need to imagine fantasies about how The Earth came into existence because we cannot accept the fact that we do not know.... that nobody knows because nobody was alive at The Origins of Earth.

We do everything in our power to dissuade others from investigating the true Topology of the Earth by always pushing them to look out into imaginary Outer Space, instead. As long as the world is obsessed with science fiction Outer Space, we stay in power through mind control.

We realize that there is no difference between Science Fiction and Astrophysics. They are the same.

We cling to our origin myths because we cannot live without at least thinking we know how the Earth came into existence. And we use rambling mathematics to prop up our Disney Goofy magic origins myths like The Big Bang, The Big Bounce, and the goofiest of all, Multiverse origins myth, all wrapped up with unsupported conjecture and Computer Generated Images of fake outer space from the wealthiest movie production studio in the world, NASA. We need to BELIEVE and IMAGINE our Fake Astrophysics Myths using **ACTORphysics** puppets like the late-not-so- great-after all, Carl Sagan, Multiverse Nonsense King, Sean Carroll, Fumbling Idiot Clown, Neil de Grasse Tyson, and Corporate Shill, Michio Kaku.

We worship the Sun because that's what any occultist organization does. Astrology and Astrophysics are identical. We know it, but we hide this fact from the world. We even pretend that Stars are huge burning Suns and that The Sun is a Star to achieve our deception. We know that The Sun is not a ball of nuclear activity, but rather, it is merely electromagnetic, as The Moon is. We know that the Stars are very close and small, and that they are the

result of sonoluminescent electromagnetics. They are not balls of nuclear activity and the Earth's elements were not forged inside the mythical core of nuclear burning Stars. The entire mythic legend about Stars being nuclear furnaces is just part of our Outer Space fairy tale.

We know the Stars are fixed above and rotate while we remain perfectly non-rotating and motionless on Earth. And we know the Constellations have never changed because The Stars are fixed above and rotating to assist in navigation. But we are an occult organization, and so, we have inverted the TRUTH and deceived the world into thinking that Earth is actually moving and spinning like a magic spaceship, while the Stars are forever expanding away from Earth, even though all empirical scientific observations reveal that this is not the case.

And we invented the magical idea of Parallax to deceive the world into thinking that the Stars were so far away, they APPEARED not to move. It was a masterstroke of genius on our part.

Since we are Jesuit Vatican Occult organization, we enlisted Jesuit agents, Copernicus, Kepler, Galileo, and later, Sir Issac Newton, to assist us in creating our fake Cosmological Model.

We are a Sun worshipping Religion and so we placed the Sun at the center of our fantasy so we could get the rest of the world to worship it with us. We are an ancient religion, so we chose an ancient word to capture the essence of our religion, "Helios", which translates to "Sun". We are a Sun-Centered religion. We are Helio-Centric. We pray to The Heavens with our telescopes and look for any signs from above that will support our Astrological Origins Myths. Yes, once upon a time, we created a myth called Heliocentrism...but we pretend it is science.

We know it is occult fantasy, but the world does not. This is how we came into power. We rose to power by deceiving the world about the origins

of the Earth. Our next deception will be to tell the world that aliens have contacted us. All will fall to the authority of this fake alien intelligence.

It is the One Deception to Rule Them All.

This ends our fairy tale..."

Marshall Hall on Fixed Earth

Some twenty years of investigating claims that the Earth rotates on an axis and orbits the Sun, and that the universe began evolving 14.5 billion years ago and is 14.5 billion light years thick, have left me without the slightest doubt:

a) That The Earth is not moving.

b) That the Bible's repeated declarations that it is the Sun that moves and not the Earth are absolutely accurate.

c) That The Big Bang Model ruling today's cosmology is handcuffed to The Copernican Heliocentricity Model.

d) That both of these models, The Big Bang Model and The Copernican Heliocentricity Model, are built solely on contra-scientific assumptions held together by occult mathematics and a fraudulent use of computerized CGI technology.

e) That those deceptive and vulnerable assumptions now undergird the entirety of modern man's "knowledge".

f) That both The Heliocentric and The Big Bang Models represent the fulfillment of the "creation scenario" from Kabbalic Judaism, masquerading as "science".

g) That the purpose of this hidden religious agenda has been to destroy the "creation scenario" of the Bible, and thereby destroy the credibility of the rest of the Bible right on through Jesus and the New Testament.

h) That the time for all who love truth over deception to give this issue their most careful and prayerful attention is now. This is especially true for all Christians who realize that their religion stands or falls on the restoration of the absolute credibility of The Bible. This Biblical non-moving Earth issue alone can force that restoration and expose all the lies now connected with evolution-based false science.

I Tim. 6:20-21

"O Timothy, keep that which is committed to thy trust, avoiding profane and vain babblings, and oppositions of science falsely so called: Which some professing have erred concerning the Faith. Grace be with thee. Amen."

--Marshall Hall, https://fstdt.com/LH54

Quotes

"It doesn't matter how beautiful your theory is, it doesn't matter how smart you are. If it doesn't agree with (empirical) experimentation, it's wrong."

-- Richard P. Feynman

"I'm reading a great book on Anti-Gravity…It's hard to put down."

--Gregory L. Garrett

"It requires far more faith to believe in The Big Bang than in a Creator."

--Gregory L. Garrett

"The Church of Heliocentrism is The New Age One World Religion talked about for centuries."

--Gregory L. Garrett

"The farther back you can look, the farther forward you are likely to see.

--Winston Churchill

"The secret to creativity is knowing how to hide your sources."

– Plagiarizing Shill, Albert Einstein

Michael Toon's Famous Nonsensical Quotes

"Of course, you cannot see the curvature of The Earth. It will always appear level when you look for curvature, regardless of how high you ascend.

That's how we know its curved."

--Michael Toon, MCToon You Tube Show

"The scientific method is not The Bible, and it is not given by God. There isn't one scientific method."

--Michael Toon, MCToon You Tube Show

Definitions

Theoretical Physics

Theoretical physics has become a modern version of the Emperor's New Clothes where ridiculous and absurd theories are proposed and accepted because doubting them would indicate some mental impairment or lack of knowledge. Physicists have abandoned reason and reality and turned physics into a make-believe science where illusions are created to support their delusions. In a science that is supposed to be based on observation and experimentation, the acceptance of a conclusion that experimenters know if they are being watched, and thus change the results when observed, invalidates all experiments and observations.

This degeneration of physics from a science to fantasy is a result of Einstein's theories. The absurdities created by Einstein's theories like Black Holes, Time Dilation, the myriad of subatomic particles invented to support his theories, and the varying of the characteristics of matter with speed are wrong and do not exists.

Also, Newton' law of Gravity was wrong and by correcting these errors physics can once again be a science based on reason and reality instead of a make-believe world populated with invisible matter and energy and ruled by magic spells.

The World

The World is a realm consisting of an enclosed, quasi-metallic, crystalline, vitreous membrane, which houses the celestial waters above and the subterranean waters below. Earth resides in-between the higher and lower waters. God above.

Raw Data and The Earth's Curvature

Heliocentrists and Enclosed Cosmologists are always in a heated debate about the authenticity of high-altitude Earth footage. Is NASA faking its footage with CGI and Photoshop? Are the Enclosed Cosmologists faking their footage with CGI and Photoshop? What's real and what's illusion anymore in a world of virtual reality and digital manipulation? We certainly live in interesting times. Nevertheless, one fact remains empirically testable by ANYONE from the surface of the Earth, and hence, escapes the stigma of digital manipulation.

There is zero curvature detectable on the Earth's curvature from ground zero. We have the trigonometrically derived and verifiable equation of expected curvature on a sphere with a radius of 3,958.8 miles (the given radius of The Earth from mainstream science), at: Miles squared X 8 Inches to calculate the expected curvature on distances of the Earth that we can use to either confirm or reject the presence of curvature on the Earth, when employing laser tests over flat water.

Invoking Gravity as a force that curves water has never been a empirically confirmed defense, and so we immediately discard that variable from our empiric investigations. What we are left with is RAW data which exhibits zero curvature upon the Earth from any measured segment of distance over flat water. Anyone can repeat this experiment and the results are consistent. That's called empirical science. It's RAW data. Interpret it any way you like.

The RAW data shows zero curvature on the Earth.

Geodesy

Geodesy is the Earth science of accurately measuring and understanding Earth's geometric shape, orientation in space, and gravitational field. The field also incorporates studies of how these properties change over time and equivalent measurements for other planets (known as planetary geodesy). Geodynamical phenomena include crustal motion, tides and polar motion, which can be studied by designing global and national control networks, applying space and terrestrial techniques and relying on datums and coordinate systems.

Definition

The word geodesy comes from the Ancient Greek word γεωδαισία geodaisia (literally, "division of Earth").

It is primarily concerned with positioning within the temporally varying gravitational field. Geodesy in the German-speaking world is divided into "higher geodesy" ("Erdmessung" or "höhere Geodäsie"), which is concerned with measuring Earth on the global scale, and "practical geodesy" or "engineering geodesy" ("Ingenieurgeodäsie"), which is concerned with measuring specific parts or regions of Earth, and which includes surveying. Such geodetic operations are also applied to other astronomical bodies in the Solar System. It is also the science of measuring and understanding Earth's geometric shape, orientation in space, and gravitational field.

To a large extent, the shape of Earth is the result of rotation, which causes its equatorial bulge, and the competition of geological processes such as the collision of plates and of volcanism, resisted by Earth's gravitational

field. This applies to the solid surface, the liquid surface (dynamic sea surface topography) and Earth's atmosphere. For this reason, the study of Earth's gravitational field is called physical geodesy.

Geoid and Reference Ellipsoid

The geoid is essentially the figure of Earth abstracted from its topographical features. It is an idealized equilibrium surface of sea water, the mean sea level surface in the absence of currents and air pressure variations, and continued under the continental masses. The geoid, unlike the reference ellipsoid, is irregular and too complicated to serve as the computational surface on which to solve geometrical problems like point positioning. The geometrical separation between the geoid and the reference ellipsoid is called the geoidal undulation. It varies globally between ±110 m, when referred to the GRS 80 ellipsoid.

A reference ellipsoid, customarily chosen to be the same size (volume) as the geoid, is described by its semi-major axis (equatorial radius) and flattening f.

The quantity f = a − b/a, where b is the semi-minor axis (polar radius), is a purely geometrical one. The mechanical ellipticity of Earth (dynamical flattening, symbol J2) can be determined to high precision by observation of satellite orbit perturbations. Its relationship with the geometrical flattening is indirect. The relationship depends on the internal density distribution, or, in simplest terms, the degree of central concentration of mass.

The 1980 Geodetic Reference System (GRS 80) posited a 6,378,137 m semi-major axis and a 1:298.257 flattening. This system was adopted at the XVII General Assembly of the International Union of Geodesy and Geophysics (IUGG). It is essentially the basis for geodetic positioning by the Global Positioning System (GPS) and is thus also in widespread use outside the geodetic community. The numerous systems that countries have used to

create maps and charts are becoming obsolete as countries increasingly move to global, geocentric reference systems using the GRS 80 reference ellipsoid.

The geoid is "realizable", meaning it can be consistently located on Earth by suitable simple measurements from physical objects like a tide gauge. The geoid can, therefore, be considered a real surface. The reference ellipsoid, however, has many possible instantiations and is not readily realizable, therefore it is an abstract surface. The third primary surface of geodetic interest—the topographic surface of Earth—is a realizable surface.

Common Misconceptions About Science: "Scientific Proof"

Misconceptions about the nature and practice of science abound and are sometimes even held by otherwise respectable practicing scientists themselves. I have dispelled some of them (misconceptions, not scientists) in earlier posts (for example, that beauty is in the eye of the beholder, beauty is only skin-deep, and you can't judge a book by its cover).

Unfortunately, there are many other misconceptions about science. One of the most common misconceptions concerns the so-called "scientific proofs." Contrary to popular belief, there is no such thing as a scientific proof.

Proofs exist only in mathematics and logic, not in science. Mathematics and logic are both closed, self-contained systems of propositions, whereas science is empirical and deals with nature as it exists. The primary criterion and standard of evaluation of scientific theory is evidence, not confirmation. All else equal (such as internal logical consistency and parsimony), scientists prefer theories for which there is more and better evidence to theories for which there is less and worse evidence.

Proofs are not the currency of science.

Proofs have two features that do not exist in science: They are final, and they are binary. Once a theorem is confirmed, it will forever be true and there will be nothing in the future that will threaten its status as a confirm theorem (unless a flaw is discovered in the proof). Apart from the discovery of an error, a proved theorem will forever and always be a proved theorem.

In contrast, all scientific knowledge is tentative and provisional, and nothing is final. There is no such thing as final proof knowledge in science. The currently accepted theory of a phenomenon is simply the best explanation for it among all available alternatives. Its status as the accepted theory is contingent on what other theories are available and might suddenly change tomorrow if there appears a better theory or new evidence that might challenge the accepted theory. No knowledge or theory (which embodies scientific knowledge) is final. That, by the way, is why science is so much fun.

Further, proofs, like pregnancy, are binary; a mathematical proposition is either proved (in which case it becomes a theorem) or not (in which case, it remains a conjecture until it is proved). There is nothing in between. A theorem cannot be kind of proved or almost proved. These are the same as unproven.

In contrast, there is no such binary evaluation of scientific theories. Scientific theories are neither absolutely false nor absolutely true. They are always somewhere in between. Some theories are better, more credible, and more accepted than others. There is always more, more credible, and better evidence for some theories than others. It is a matter of more or less, not either/or. For example, experimental evidence is better and more credible than correlational evidence, but even the former cannot confirm a theory; it only provides very strong evidence for the theory and against its alternatives.

The knowledge that there is no such thing as a scientific confirmation should give you a very easy way to tell real scientists from hacks and wannabes. Real scientists never use the words "scientific confirmations,"

because they know no such thing exists. Anyone who uses the words "proven," "proof," and "unproven" in their discussion of science is not a real scientist.

The creationists and other critics of evolution are absolutely correct when they point out that evolution is "just a theory" and it is not "proven." What they neglect to mention is that everything in science is just a theory and is never proven. Unlike the Prime Number Theorem, which will absolutely and forever be true, it is still possible, albeit very, very, very, very, very unlikely, that the theory of evolution by natural and sexual selection may one day turn out to be false.

Newton's Equations, Gravimeter, and Ring Laser Gyroscope Measurements are Merely Descriptive: They Are not Reality

Newton's equations are NOT connected to an imaginary core of an imaginary ball Earth. Newton's equations are simply descriptive tools and very handy, but that's it. They do not explain the REASON for directional vectors, but rather they merely DESCRIBE and PREDICT behavior, nothing more.

Newton's equations are still useful to describe and calculate motion but not because Gravity is a real force. They are useful because they are descriptive mathematics which are sufficient in describing the way in which object density acts within various mediums.

Mathematics merely reflects a mechanistic process, deducing theorems from initial assumptions, and always following clear logical steps. To the Formalist, mathematics is not an abstract representation of reality, but is more like a game with clearly defined rules but no deep underlying meaning or accurate description of reality, itself.

For example, you can use mathematics to create a computer simulation with laws that align with whatever mathematical equations you have computed for your simulation, and it may all work perfectly for your simulation. But that does not mean that your mathematics reflect the real world that we all inhabit, apart from your gaming simulation.

Likewise, The Heliocentric Model is a mental construct that nobody has ever seen. CGI images of The Earth from alleged Outer Space coming from Masonic NASA, obviously, do not apply. And so, The Heliocentric Model is likened to a gaming simulation that mathematicians, such as Sir Issac Newton, have invented mathematical equations for in order to express various laws, mechanism, and principle in their imagined model. What they have done is take any Enclosed Cosmological descriptions, cartographic delineations, and data points and, using perfected mathematics, they have reverse engineered all of it to support the Heliocentric simulation that they have invented in their heads.

Linguistic Descriptive Syntax Determines Reality

Our perceptions can be caused by mind-independent nature, by our minds themselves, or by God. This is a thoroughly skeptical remark: there is no way to tell which of the three – or perhaps more – options is the right one. In Hume's view, we cannot even think of reality itself, because we cannot form an idea of a thing in itself. This would be an object without any sensory qualities, something 'beyond the reach of human conception', he writes. As we don't have an idea of a self-existing reality, we don't have a reason to believe in it. This follows from what the Hume scholar Miren Boehm in 2013 called a 'No Reason to Believe' principle: if we are to believe in something, we must have its idea. We don't have the idea of an external reality. No matter how much we think about the problem, we cannot reason our way out of the skeptical challenge. And ideas are available to us only in as far as we may apply Linguistics to define an idea. Descriptive syntax or definitions determine what we perceive. If we cannot to define it by shape,

form, textural attribute, color, etc…, we cannot say we perceive anything in time or otherwise.

How is the problem of metaphysical realism relevant to special relativity, and the philosophy of time? The theory requires that an event happens before and independent of it being observed. As all signals travel slower than or at the speed of light, the sending of the signal happens before the receiving of the signal. Although the corollaries of special relativity are mind-boggling, the theory is in this regard commonsensical. Think about an example like this. On New Year's Eve, I see a firework in the sky. There is a physical event, the explosion, in a space distant to me. Light and sound waves propagate with finite velocities; it takes time before I receive information of the explosion. It must be that the event took place before my visual and auditory perceptions. If I didn't shoot the rocket or have anything to do with the causes that brought it up to the sky, it must be that the explosion happened entirely independent of me. Yet the explosion caused my visual and auditory impressions.

Einstein himself had deep sympathies with realist philosophy; so much that the indeterminacy of quantum mechanics was repugnant to him. The event-realism in relativity is in tension with Hume's radical and skeptical empiricism. One should allow a distinction between perceptions and physical events, and agree that our perceptions are caused by natural events that occur independently of us. Hume's rigidly empiricist stance does not countenance such a conclusion.

The Hume-Einstein connection is multifaceted, and raises fascinating connections between science and philosophy. When examining the nature of time, we enter a grey area in which physics and philosophy overlap. This is the proper field for natural philosophy, a combination of ambitious philosophical thinking and scientific acumen.

Chapter 1

Free Fall and the Misleading Terminology of "Acceleration of Gravity": Elephants and Mice

The acceleration of a falling object on Earth is 9.8 m/s/s. This value, known as "the acceleration of Gravity", is the same for all falling objects regardless of how long they have been falling, or whether they were initially dropped from rest or thrown up into the air. Nevertheless this variable, 9.8 m/s/s, does not literally or actually describe gravitational acceleration, but rather, it merely describes the rate at which objects fall. Extrapolating that this descriptive variable is connected to Gravity was the masterstroke of deception by Alchemical Wizard and High Freemason, Sir Issac Newton, in order to bolster up a Heliocentric Model of The Cosmos, complete with a Big Bang, billions of years of Evolution, and the possibility of alien life.

And so, remember, as we move forward, that although Newton's mathematical descriptions do apply to falling bodies because the math "works", this does not imply that the causal force behind Newton's mathematics is necessarily Gravity.

In fact, more empirically speaking, objects fall or rise due to the relationship between:

1. Object Density

2. The Index of Buoyancy of an Object
3. Dielectric Forces
4. Electrostatic Attraction
5. Ferrous and Non-Ferrous Magnetism
6. Electromagnetic Forces
7. Aerodynamic Resistance
8. Thermodynamic Exchange
9. The Result of an Object in a Particular Atmospheric Medium
10. The "Aetheric Wind" (Luminiferous Aether)

At no point is Gravity necessary nor advantageously mechanically descriptive in order to calculate and describe physical bodies in motion. Newton's math describes physical behavior, not causal forces. All of Newton's Laws of Motion, including the math behind them, work perfectly fine without complicating matters with the idea of a fictional force pulling objects towards the center of the Earth.

Mass Versus Density

The term, "mass" is used to mean the amount of matter contained in an object. Density alludes to the closeness of the atoms, in substance, (i.e. how tightly atoms are packed). Mass is the measure of the amount of inertia, which is the tendency of an object to continue in the state of rest or of uniform motion. Conversely, density is the degree of compactness.

Newton's Second Law of Motion

That situation is described by Newton's Second Law of Motion. According to NASA, this law states, "Force is equal to the change in momentum per change in time. For a constant mass, force equals mass times acceleration."

This is written in mathematical form as F = ma.

F is force, m is mass and a is acceleration.

What is force, mass, and acceleration?

- A **Force** is a push or pull upon an object resulting from the object's interaction with another object. Whenever there is an interaction between two objects, there is a force upon each of the objects. When the interaction ceases, the two objects no longer experience the force. Forces only exist as a result of an interaction.
- **Mass** is both a property of a physical body and a measure of its resistance to acceleration (rate of change of velocity with respect to time) when a net force is applied. In physics, an object's mass is said to determine the strength of its gravitational attraction to other bodies. Obviously, this aspect of mass is a fictional description.
- In mechanics, **Acceleration** is the rate of change of the velocity of an object with respect to time. Accelerations are vector quantities (in that they have magnitude and direction). The orientation of an object's acceleration is given by the orientation of the net force acting on that object.

Sir Isaac Newton's Universal Law of Gravitation (Fg = G (m1 * m2 / r2): Mass Attracting Mass

And as far as mass attracting mass is concerned, it is widely known that various dielectric, electro static, quantum electro dynamic, electromagnetic forces, and both ferrous and non-ferrous magnetism operates to manipulate mass in relationship to mass. Inventing a extra invisible fictional force emanating from mass is both unnecessary and presumptuous. No person has ever confirmed that massive celestial bodies are floating in Outer Space attracting each other in a mass attracts mass fashion, as Sir Isaac Newton's Universal Law of Gravitation (F=Gmm/r2) describes. The math only describes and predicts physical behavior. It does not confirm any causal force behind Gravity.

- Math is not reality.
- It is more like a descriptive cartography than reality itself.

Sir Isaac Newton's universal law of gravitation (F=Gmm/r2) is an equation representing the attractive force (F) of two masses (m) separated at distance (r). It was first published as a part of Newton's works on classical mechanics in the late 1600s. Force is proportional to mass and distance, related by a proportionality symbol known as the gravitational constant (G). The force of Gravity occurs even at the smallest of particles, yet at this scale, force and motion is dominated by the electric force. Only when the electric force is neutralized, such as in atoms, can the presence of Gravity be detected. Gravity is so weak, that it takes trillions and trillions of atoms, such as large bodies like planets, before the force is significant.

Description

Sir Isaac Newton's universal law of gravitation (F=Gmm/r2) is an equation representing the attractive force (F) of two masses (m) separated at distance (r). It was first published as a part of Newton's works on classical mechanics in the late 1600s. Force is proportional to mass and distance, related by a proportionality symbol known as the gravitational constant (G). The force of Gravity occurs even at the smallest of particles, yet at this scale, force and motion is dominated by the electric force. Only when the electric force is neutralized, such as in atoms, can the presence of Gravity be detected. Gravity is so weak, that it takes trillions and trillions of atoms, such as large bodies like planets, before the force is significant.

Universal Law of Gravitation Equation

In energy wave theory, Gravity results from a shading effect of the electric force between the particles. Although the longitudinal amplitude loss of Gravity is slight, when a large number of particles form in a large body such as a planet, the total amplitude loss becomes much greater. This creates a shading effect where amplitude is larger before a wave passes through a

large body and smaller after it passes through it, causing an attractive force. Other particles in the vicinity are attracted to the large body because of motion to minimize amplitude.

Gravity Amplitude Loss: Derivation – Classical Constants

The universal law of gravitation can be derived using only Planck constants (classical constants). The derivation is very similar to Coulomb's law as they are both related to the electron's energy at distance. Where it differs from Coulomb's law is an additional geometry for the spin at the particle core of a second particle, as Gravity is a shading effect between two or more particles. The geometric ratios from the geometry of spacetime page ($\alpha 1$ and $\alpha 2$) are used in Eq. 1.5.3. When all of the variables in the $\alpha 2$ ratio are the electron's classical radius (re), with the exception of slant length (l), which is πre, it resolves to be the fine structure constant (described in Eq. 1.5.6). When the x and y variables in the $\alpha 2$ ratio are Planck length (lP), cone radius is electron's classical radius (re) and slant length is πre, it resolves to be the gravitational coupling constant for the electron (described in Eq. 1.5.7). Further details can be found in the Geometry of Spacetime paper.

Universal Gravitation Force Derivation From Classical Constants

This derivation begins with the classical form of the gravitational force. The equation contains a dimensionless particle count (Q) which needs to be converted to mass (m) to be consistent with the law of universal gravitation, which uses mass as a method to determine gravitational force. Mass is the total sum of particle mass where Q is the number of particles and me is the mass of a particle (electron). In other words, m=Qme.

The magnitude of an object's acceleration, as described by Newton's Second Law, is the combined effect of two causes:

a. The net balance of all external forces acting onto that object — magnitude is directly proportional to this net resulting force.

b. That object's mass, depending on the materials out of which it is made — magnitude is inversely proportional to the object's mass.

Newton's First Law of Motion predicts the behavior of objects for which all existing forces are balanced. The First Law, sometimes referred to as The Law of Inertia, states that if the forces acting upon an object are balanced, then the acceleration of that object will be 0 m/s/s. Objects at equilibrium (the condition in which all forces balance) will not accelerate. According to Newton, an object will only accelerate if there is a net or unbalanced force acting upon it. The presence of an unbalanced force will accelerate an object, changing its speed, its direction, or both its speed and direction.

Free-Fall: The Elephant and The Mouse

Given all this, a questions often asked is:

"Doesn't a more massive object accelerate at a greater rate than a less massive object?"

Would not an elephant fall faster than a mouse due to its far larger mass?

This question is a reasonable inquiry that is probably based in part upon personal observations made of falling objects in the physical world. After all, nearly everyone has observed the difference in the rate of fall of a single piece of paper versus a whole textbook. The two objects clearly travel to the ground at different rates, with the more massive book falling faster.

But why?

The answer to our particular question, "Doesn't a more massive object, like an elephant, accelerate at a greater rate than a less massive object, like a mouse?", is absolutely not. That is, absolutely not if we are considering the specific type of falling motion known as Free-Fall. Free-Fall is the motion of

objects that move under the sole influence of alleged Gravity, irrespective air resistance, as in a vacuum. More massive objects will fall even slower if there is an appreciable amount of air resistance present. But in a vacuum, a single piece of paper will fall at the same rate as a whole textbook, and an elephant will fall as fast as a mouse, due to the lack of atmospheric resistance for both objects.

Hence, if Newton's Second Law were applied to the falling motion of an elephant and a mouse, and if a free-body diagram were constructed, then it would be seen that the 1000-kg baby elephant would experiences a greater force of Gravity than a mouse due to its larger mass. This greater force of Gravity would have a direct effect upon the elephant's acceleration. Thus, based on force alone, it might be thought that the 1000-kg baby elephant would accelerate faster. But acceleration depends upon two factors: force and mass. The 1000-kg baby elephant obviously has more mass (or inertia). This increased mass has an inverse effect upon the elephant's acceleration. And thus, the direct effect of greater force on the 1000-kg elephant is offset by the inverse effect of the greater mass of the 1000-kg elephant; and so each object accelerates at the same rate - approximately 9.8 m/s/s. The ratio of force to mass (Fnet/m) is the same for the elephant and the mouse under situations involving Free Fall.

Newton's "Gravitational Acceleration of Gravity" is Misleading Terminology

The acceleration of an object is directly proportional to force and inversely proportional to mass. Increasing force tends to increase acceleration while increasing mass tends to decrease acceleration. Thus, the greater force on more massive objects is offset by the inverse influence of greater mass. Subsequently, all objects free fall at the same rate of acceleration, regardless of their mass.

In other words, the acceleration of the object equals the gravitational acceleration of alleged Gravity, in terms of Newtonian Mechanics. The mass, size, and shape of the object are not a factor in describing the motion of the object. So all objects, regardless of size or shape or weight, free fall with the same acceleration. And yet, again, Newton's "gravitational acceleration" variable still only describes motion, but not the cause of it. Newton's "gravitational acceleration" variable is an example of misleading terminology, and one should be wary of its misapplication in the calculation of falling bodies.

In summary, using Newton's equations are beneficial for describing physical motion, as well as quite accurate, but implying that a magical, unconfirmed force called Gravity is behind these equations is an unnecessary and unscientific leap of religious faith into fictional pseudo-science.

The Role of Relative Density and the Atmospheric Medium on Falling Bodies: Clouds, Oceans, and Apples

Why do clouds, with millions of tons of water vapor mass, hang effortlessly in the air, while tiny little, comparatively massless, apples plummet to the ground? And meanwhile, the oceans, with billions and billions of tons of water mass, stick to the surface of an imaginary ball spinning at 1000 mph. How does mass play a role in these apparent enigmas where massive bodies appear to either float or sink without rhyme or reason, while smaller massed objects virtually free fall? If mass was the reason behind falling or rising bodies, certainly the larger the mass of a body, the more assured it would be to fall, right? But, this is not the case. And, it seems rather counterintuitive

when you consider how heavy things fall from your hand to the ground so easily, but then clouds, weighing millions of tons, remain suspended in air.

To solve this apparent riddle, we must figure out what force is holding heavy massed objects like clouds in the air to "defy Gravity", while comparatively massless apples fall to the ground, knowing that we cannot explain this apparent contradiction using mass.

Recall that this situation is described by Newton's Second Law of Motion. According to NASA, this law states, "Force is equal to the change in momentum per change in time. For a constant mass, force equals mass times acceleration." And so, we must always insert the variables, Force, Mass, and Acceleration into the equation, F=ma, in order to solve for such paradoxical behavior. At face value, clouds have a great mass, and so they should virtually free fall to the ground.

Mystery Solved: The Hidden Variables of Density and the Atmospheric Medium

However, though increasing force tends to increase the rate of acceleration, increasing mass tends to decrease acceleration. Thus, the greater force on more massive objects is offset by the inverse influence of greater mass. Subsequently, all objects free fall at the same rate of acceleration, regardless of their mass. In this case, the force acting upon the clouds is the atmospheric pressure. The atmospheric pressure of The Earth is acting upon the greater mass of the water vapor, resulting in clouds that float instead of fall. You could look at atmospheric pressure as a force of resistance acting upon the clouds.

Bobbing for Apples: Density and Buoyancy

Apples, on the other hand, are very small and so their relatively small mass is not influenced nearly as dramatically by the atmospheric medium it is falling within. Change the atmospheric medium to water, and the apple will

float. It's that simple. Gravity never comes into play. Far more can be explained by object density, and the relationship between any given object and the atmospheric medium it is acting within, than object mass and Gravity. Naturally, I am referring to the relationship between density and buoyancy, and how the atmospheric medium tends to dictate motion, whether up or down.

The Mass Versus Density of Clouds and Apples

Recall that the term, "mass" is used to mean the amount of matter contained in an object. Density alludes to the closeness of the atoms, in substance, (i.e. how tightly atoms are packed). Mass is the measure of the amount of inertia, which is the tendency of an object to continue in the state of rest or of uniform motion. Conversely, density is the degree of compactness.

And so, in the situation where clouds are far more massive than apples, with more weight in kilograms, they do not possess much atomic density due to the nature of water vapor. And this is why clouds are said to "defy Gravity" and stay aloft. It is their relatively sparse atomic density, compared to the meaty flesh of an apple. It is the atmospheric pressure above The Earth that holds millions of pounds of massive clouds in midair. Afterall, more massive objects will fall even slower if there is an appreciable amount of air resistance present acting as a Newtonian "Force" upon an object.

The Relative Density (Specific Gravity) of the Oceans Do Not Require Gravity to Lay Flat

Relative density is the ratio of the density (mass of a unit volume) of a substance to the density of a given reference material. Specific Gravity usually means relative density with respect to water. The term "relative density" is often preferred in scientific usage. It is defined as a ratio of density of particular substance with that of water.

If a substance's relative density is less than one, then it is less dense than the reference; if greater than 1 then it is denser than the reference. If the relative density is exactly 1 then the densities are equal; that is, equal volumes of the two substances have the same mass. If the reference material is water, then a substance with a relative density (or specific Gravity) less than 1 will float in water. For example, an ice cube, with a relative density of about 0.91, will float. A substance with a relative density greater than 1 will sink.

Basic Calculation for Specific Gravity

Relative Density (RD) or Specific Gravity (SG) is a dimensionless quantity, as it is the ratio of either densities or weights

RD = p substance/ p reference

…where RD is relative density, (p substance) and is the density of the substance being measured, and p reference is the density of the reference. (By convention "p" denotes density.)

If the reference is not explicitly stated then it is normally assumed to be water at 4 °C (or, more precisely, 3.98 °C, which is the temperature at which water reaches its maximum density). In SI units, the density of water is (approximately) 1000 kg/m3 or 1 g/cm3, which makes relative density calculations particularly convenient: the density of the object only needs to be divided by 1000 or 1, depending on the units.

But, Gravity has nothing to do with this situation. It is literally the relative density of objects, and their relative index of buoyancy in a particular medium that dictates all this vertical motion. The oceans stick to the ground because of their relative density, and not because of any imaginary force pulling them towards the center of an imaginary ball Earth.

The Acceleration of Falling Objects in Relationship to the Atmospheric Pressure and Molecular Density of an Enclosed Pressurized System According to The Second Law of Thermodynamics

Speeding up While Falling Down

Heliocentrists claim that Gravity is a force that pulls objects down toward the ground. Additionally, when objects fall to the ground, they assert that Gravity causes them to accelerate. Acceleration is a change in velocity, and velocity, in turn, is a measure of the speed and direction of motion. The idea is that Gravity causes an object to fall toward the ground at a faster and faster velocity the longer the object falls. An object falls at 9.8 m/s2.

By 1 second after an object starts falling, its velocity is 9.8 m/s2.

By 2 seconds after it starts falling, its velocity is 19.6 m/s (9.8 m/s + 9.8 m/s).

By 3 seconds after it starts falling, its velocity is 29.4 m/s (9.8 m/s + 9.8 m/s + 9.8 m/s).

By 4 seconds after it starts falling, its velocity is 39.2 m/s (9.8 m/s + 9.8 m/s + 9.8 m/s+ 9.8 m/s).

By 5 seconds after it starts falling, its velocity is 49.0 m/s (9.8 m/s + 9.8 m/s + 9.8 m/s+ 9.8 m/s+ 9.8 m/s).

Terminal Velocity

Falling objects eventually reach a maximum speed, which is called "Terminal Velocity", when falling, even though, theoretically, in a vacuum an object would continually accelerate in its free fall. Yet, due to atmospheric pressure, falling objects reach a "constant velocity" due to the restraining force of air. We call this restraining force "drag". This force caused by air resistance increases the faster the falling object fall until Terminal Velocity is reached.

The Gravitational Explanation for Terminal Velocity

According to modern physics, the two forces acting upon a falling object are the gravitational force and the drag force. When an object reaches terminal velocity, it means that the Gravity and drag forces are equal and in opposite directions.

The Drag Force is as Follows:

$$Fd=CApV2/2$$

- C - Drag coefficient dependent on geometry and surface finish
- A - Reference Area of falling object (front facing area like the cone tip of a missile)
- p - density of air (lower at higher altitudes)
- V - velocity (of the object through air)

The Atmospheric Pressure of a Medium and The Acceleration of Falling Objects

The molecular density of the air through which an object is falling, has an influence on the amount of air friction that is present. We can think of this molecular density, in part, as a function of Atmospheric Pressure. The higher the altitude, the less the atmospheric pressure. Atmospheric pressure literally decreases with increasing altitude. The pressure at any level in the atmosphere may be interpreted as the total weight of the air above a unit area at any elevation. At higher elevations, there are fewer air molecules above a given

surface than a similar surface at lower levels. For example, there are fewer molecules above the 50 km surface than are found above the 12 km surface, which is why the pressure is less at 50 km.

From the formula, Fd=CApV2/2, we can see that with a higher density, the drag force will also be higher. However, determining the relationship between falling objects, atmospheric pressure, and molecular density is a bit more complicated.

The Ideal Gas Law and its Relationship to Atmospheric Pressure and Atmospheric Density

The Ideal Gas Law, also called The General Gas Equation, is the Equation of State of a hypothetical ideal gas. In physics and thermodynamics, an Equation of State is a thermodynamic equation relating state variables which describe the state of matter under a given set of physical conditions, such as pressure, volume, temperature (PVT), or internal energy. Equations of State are useful in describing the properties of fluids, mixtures of fluids, and solids.

The Ideal Gas Law is a good approximation of the behavior of many gases under many conditions, although it has several limitations. It was first stated by Benoît Paul Émile Clapeyron in 1834 as a combination of the empirical Boyle's law, Charles's law, Avogadro's law, and Gay-Lussac's law.

The Ideal Gas Law is often written in an empirical form:

$$PV=nRT$$

…where P, V and T are the pressure, volume and temperature; n is the amount of substance; and R is the ideal gas constant. It is the same for all gases. It can also be derived from the microscopic kinetic theory, as was achieved by August Krönig in 1856 and Rudolf Clausius in 1857.

Air does not behave exactly like an Ideal Gas but the relationship is similar. Here we can see that if we can control the pressure exclusively, the density will be affected in the same way. Realistically, when the pressure is increased, the temperature will also increase but not quite enough to keep the density constant. Therefore it's fair to say that with air, an increased pressure will result in an increased air density, which will then increase the drag force.

Perhaps the question is a bit ambiguous because it asks what the effect of air pressure is on a falling object's velocity. We know that with a change in Pressure, there will also be a change in Temperature. If we want to know what the effect of exclusively changing the pressure is, we can look at an experiment inside a vacuum chamber:

1. If we have a feather inside a vacuum chamber at room temperature and atmospheric pressure, we then let the feather go and take the time it takes for the feather to drop.
2. We then reset the feather and activate the vacuum pump and allow the pressure to drop to half atmospheric pressure. We keep it at this pressure for a couple of minutes to allow the temperature inside the chamber to normalize back to room temperature. (now we have effectively changed only the air pressure)
3. If we now release the feather and clock the time it takes to drop, we find that the feather drops much faster.
4. The feather's mass and geometry has remained the same but the effect of the lower air pressure has decreased the drag force.
5. By having a lower pressure at the same temperature, the density of the air has decreased and has therefore also decreased the drag force.
6. An increase of the pressure alone will also increase the drag force.

And so, we can see that it is not merely the atmospheric pressure that dictates the rate at which objects fall, but also we must factor in the molecular density and temperature of the pressurized medium in which they fall.

We Live in an Enclosed Pressurized System According to The Second Law of Thermodynamics

The second law of thermodynamics establishes the concept of entropy as a physical property of a thermodynamic system. Entropy predicts the direction of spontaneous processes, and determines whether they are irreversible or impossible despite obeying the requirement of conservation of energy as expressed in the first law of thermodynamics. The second law may be formulated by the observation that the entropy of isolated systems left to spontaneous evolution cannot decrease, as they always arrive at a state of thermodynamic equilibrium, where the entropy is highest.

In thermodynamics, a closed system can exchange energy (as heat or work) but not matter, with its surroundings. An isolated system cannot exchange any heat, work, or matter with the surroundings, while an open system can exchange energy and matter. If the Earth was an open Thermodynamic system, the atmosphere would leach out into space in seconds, due to the immense theoretical vacuum of fictional Outer Space, and kill all life on Earth.

Thus, we know that we live in an enclosed pressurized system according to The Second Law of Thermodynamics.

Examples of Open, Closed, and a Fully Enclosed Systems

Open System: An open system is a system that freely exchanges energy and matter with its surroundings. For instance, when you are boiling soup in an open saucepan on a stove, energy and matter are being transferred to the surroundings through steam.

Closed System: Putting a lid on the saucepan makes the saucepan a closed system. A closed system is a system that exchanges only energy with its surroundings, not matter. By putting a lid on the saucepan, matter can no

longer transfer because the lid prevents matter from entering the saucepan and leaving the saucepan.

Fully Enclosed System: The Earth with its containment apparatus known as The Firmament. The necessary antecedent to gas pressure is containment. The Earth has atmospheric pressure, and so, our pressurized air must be contained by The Firmament, much like a sauce pan lid.

Afterthoughts

I am a huge fan of Newton's Laws of Motion, however, and I think Newton's Laws best explain motion, but even Newton said Gravity was a merely a speculation as a causal antecedent to his laws. In short, I simply see zero empirical evidence for an attractive force behind mass, view which does not discredit, in any way, the descriptive properties of Newton's equations.

It's an epistemological point of reference I am trying to get people to comprehend. It matters not how many predictive equations one develops, or from where on Earth you apply them. The fact remains, no human being has ever confirmed that there is an attractive force behind mass as a causal antecedent to physical behavior. It is a huge leap of religious faith to believe in Gravity.

I prefer empirical data to that.

Heliocentrists are inventing a force and then saying it is real and asking people to believe in this fictional invention. Describing physical behavior is physics, but claiming the causal antecedent is an attractive force behind mass, a is nothing short of a leap of faith into a religious claim.

I have done about 12 radio shows as the guest speaker this year... I have essentially stated by case on innumerable topics already...not just Enclosed Cosmology. Most people who know my work know the empirical stance I take on science. If you cannot demonstrate your claim using empirical science, I will not accept it. Gravity is far from being demonstrated

or confirmed in any way. It's a religious claim, whereas Newton's math is, contrarily and effectively accurate. And people try to find some people who conform to their epistemological apparatus for inquiry...to confirm what they already believe in…a fantasy.

The False Dichotomy Between Heliocentrism and Enclosed Cosmology

Wikipedia lists nearly 46 different Cosmological Origins of The Universe Theories going back to 1700–1100 BC. The Heliocentric Claim that you must chooses between Enclosed Cosmology of one particular type, and Heliocentrism does not take into account the fact that you actually don't have to choose. You are allowed to have an incomplete model due to the unfalsifiable nature of certain Astrophysical perspectives, as well as certain geophysical characteristics.

And NASA has, again and again, disqualified itself as trustworthy source of Astrophysical perspectives, so still, we are left with a mountain of unfalsifiable claims. We cannot get high enough to see the entire Enclosed Cosmological Model, Earth and Firmament, together.

Though Heliocentrism claims to have the most complete model, it does not. What it has are wild unconfirmed claims that work mathematically but are not empirically observable, such as the lack of observable curvature or any sense of axio-rotation or movement.

The false dichotomy between Heliocentrism and Enclosed Cosmology creates this false tension between the two where people are pressured to choose on or the other. But one is not required to choose. It is perfectly acceptable in the bounds of science to not know the complete model, and yet

still be correct about the model you have chosen. You are allowed to be in the process of building your model.

The current philosophically preferred Copernican Cosmological Model does not mean it is correct. It only means that the epistemological cartels involved in "reality construction" have chosen to push this particular model as their chosen philosophically preferred model, nothing more.

And so, you do not have to be proponent of The Enclosed Cosmological model to study it. You can simply reject The Heliocentric Model and start your journey into researching Enclosed Cosmological.

Heliocentrists will attempt to force you into this false dichotomy between Heliocentrism and Enclosed Cosmology so they can label you as a "Flat Earther", with all the stigma that goes with such a simplistic title. The idea is to attack their perceived opponent with mockery and ridicule rather than science. Once you understand this strawman argument attack on your character, you can simply assert that you are not saying that you are a Flat Earther, and only saying that you see no evidence for curvature and axio-rotation on Earth. This is a fair stance to take, and though the lower intelligent of the Heliocentrists will still shoot arrows at you labeled "Flat Earther!", their arrow will carry no barb when you assert you are simply talking about the failure of The Heliocentric Model, nothing more.

--Gregory L. Garrett

Cosmological Origins of The Universe Theories

The mere notion that we know the origins of The Universe as a fact is so absurd, I am not going to write much on it. I am just going to give you the Wikipedia list of Cosmological Origins of The Universe theories to show just how ridiculous it is to claim that any one theory is a fact. I have choses The Biblical Cosmological Model, but that does not mean I know the exact mechanism of how The Lord created, and Heliocentricism absolutely does not know. All they have are assumptions built upon assumption, built upon conjecture, built upon hypothesis, padded and bolstered up with obtuse mathematics.

NASA and Scientism claim to have facts.

They do not.

They have a religion called Scientism, actually:

Name	Author and date	Classification	Remarks
Hindu cosmology	Rigveda (c. 1700–1100 BC)	Cyclical or oscillating, Infinite in time	One cycle of existence is around 311 trillion years and the life of one universe around 8 billion years. This Universal cycle is preceded by an infinite number of universes and to be followed by another infinite number of universes. Includes an infinite number

			of universes at one given time.
Jain cosmology	Jain Agamas(written around 500 AD as per the teachings of Mahavira 599–527 BC)	Cyclical or oscillating, eternal and finite	Jain cosmology considers the *loka*, or universe, as an uncreated entity, existing since infinity, the shape of the universe as similar to a man standing with legs apart and arm resting on his waist. This Universe, according to Jainism, is broad at the top, narrow at the middle and once again becomes broad at the bottom.
Babylonian cosmology	Babylonian literature (c. 3000 BC)	Flat earth floating in infinite "waters of chaos"	The Earth and the Heavens form a unit within infinite "waters of chaos"; the earth is flat and circular, and a solid dome (the "firmament") keeps out the outer "chaos"-ocean.
Eleatic cosmology	Parmenides (c. 515 BC)	Finite and spherical in extent	The Universe is unchanging, uniform, perfect, necessary, timeless, and neither generated nor perishable. Void is impossible. Plurality and change are products of epistemic ignorance derived from sense experience. Temporal and spatial limits

			are arbitrary and relative to the Parmenidean whole.
Biblical cosmology	Genesis creation narrative	Earth floating in infinite "waters of chaos"	The Earth and the Heavens form a unit within infinite "waters of chaos"; the "firmament" keeps out the outer "chaos"-ocean.
Atomist universe	Anaxagoras (500–428 BC) & later Epicurus	Infinite in extent	The universe contains only two things: an infinite number of tiny seeds (atoms) and the void of infinite extent. All atoms are made of the same substance, but differ in size and shape. Objects are formed from atom aggregations and decay back into atoms. Incorporates Leucippus' principle of causality: "nothing happens at random; everything happens out of reason and necessity". The universe was not ruled by gods.[*citation needed*]
Pythagorean universe	Philolaus (d. 390 BC)	Existence of a "Central Fire" at the center of the Universe.	At the center of the Universe is a central fire, around which the Earth, Sun, Moon and planets revolve uniformly. The Sun revolves around the central fire once a year, the stars

			are immobile. The earth in its motion maintains the same hidden face towards the central fire, hence it is never seen. First known non-geocentric model of the Universe.[18]
De Mundo	Pseudo-Aristotle(d. 250 BC or between 350 and 200 BC)	The Universe then is a system made up of heaven and earth and the elements which are contained in them.	There are "five elements, situated in spheres in five regions, the less being in each case surrounded by the greater — namely, earth surrounded by water, water by air, air by fire, and fire by ether — make up the whole Universe."[19]
Stoic universe	Stoics (300 BC – 2 00 AD)	Island universe	The cosmos is finite and surrounded by an infinite void. It is in a state of flux, and pulsates in size and undergoes periodic upheavals and conflagrations.
Aristotelian universe	Aristotle (384–322 BC)	Geocentric, static, steady state, finite extent, infinite time	Spherical earth is surrounded by concentric celestial spheres. Universe exists unchanged throughout eternity. Contains a fifth element, called Aether, that was added to the four classical elements.

Aristarchean universe	Aristarchus(circa 2 80 BC)	Heliocentric	Earth rotates daily on its axis and revolves annually about the sun in a circular orbit. Sphere of fixed stars is centered about the sun.
Ptolemaic model	Ptolemy (2nd century AD)	Geocentric (based on Aristotelian universe)	Universe orbits around a stationary Earth. Planets move in circular epicycles, each having a center that moved in a larger circular orbit (called an eccentric or a deferent) around a center-point near Earth. The use of equants added another level of complexity and allowed astronomers to predict the positions of the planets. The most successful universe model of all time, using the criterion of longevity. Almagest (the Great System).
Aryabhatan model	Aryabhata (499)	Geocentric or Heliocentric	The Earth rotates and the planets move in elliptical orbits around either the Earth or Sun; uncertain whether the model is geocentric or heliocentric due to planetary orbits given with respect to both the Earth and Sun.

Medieval universe	Medieval philosophers (500–1200)	Finite in time	A universe that is finite in time and has a beginning is proposed by the Christian philosopher John Philoponus, who argues against the ancient Greek notion of an infinite past. Logical arguments supporting a finite universe are developed by the early Muslim philosopher Alkindus, the Jewish philosopher Saadia Gaon, and the Muslim theologian Algazel.
Multiversal cosmology	Fakhr al-Din al-Razi (1149–1209)	Multiverse, multiple worlds and universes	There exists an infinite outer space beyond the known world, and God has the power to fill the vacuum with an infinite number of universes.
Maragha models	Maragha school(1259–1528)	Geocentric	Various modifications to Ptolemaic model and Aristotelian universe, including rejection of equant and eccentrics at Maragheh observatory, and introduction of Tusi-couple by Al-Tusi. Alternative models later proposed, including the first accurate lunar model by Ibn al-Shatir, a model rejecting stationary Earth in favour of Earth's

			rotation by Ali Kuşçu, and planetary model incorporating "circular inertia" by Al-Birjandi.
Nilakanthan model	Nilakantha Somayaji (1444–1544)	Geocentric and heliocentric	A universe in which the planets orbit the Sun, which orbits the Earth; similar to the later Tychonic system
Copernican universe	Nicolaus Copernicus (1473–1543)	Heliocentric with circular planetary orbits	First described in *De revolutionibus orbium coelestium*.
Tychonic system	Tycho Brahe(1546–1601)	Geocentric and Heliocentric	A universe in which the planets orbit the Sun and the Sun orbits the Earth, similar to the earlier Nilakanthan model.
Bruno's cosmology	Giordano Bruno(1548–1600)	Infinite extent, infinite time, homogeneous, isotropic, non-hierarchical	Rejects the idea of a hierarchical universe. Earth and Sun have no special properties in comparison with the other heavenly bodies. The void between the stars is filled with Aether, and matter is composed of the same four elements (water, earth, fire, and air), and is atomistic, animistic and intelligent.

Keplerian	Johannes Kepler(1571–1630)	Heliocentric with elliptical planetary orbits	Kepler's discoveries, marrying mathematics and physics, provided the foundation for our present conception of the Solar system, but distant stars were still seen as objects in a thin, fixed celestial sphere.
Static Newtonian	Isaac Newton(1642–1727)	Static (evolving), steady state, infinite	Every particle in the universe attracts every other particle. Matter on the large scale is uniformly distributed. Gravitationally balanced but unstable.
Cartesian Vortex universe	René Descartes, 17th century	Static (evolving), steady state, infinite	System of huge swirling whirlpools of Aethereal or fine matter produces what we would call gravitational effects. But his vacuum was not empty; all space was filled with matter.
Hierarchical universe	Immanuel Kant, Johann Lambert, 18th century	Static (evolving), steady state, infinite	Matter is clustered on ever-larger scales of hierarchy. Matter is endlessly recycled.
Einstein Universe with a cosmological constant	Albert Einstein, 1917	Static (nominally). Bounded (finite)	"Matter without motion". Contains uniformly distributed matter. Uniformly curved spherical space; based on Riemann's hypersphere. Curvature is

			set equal to Λ. In effect Λ is equivalent to a repulsive force which counteracts gravity. Unstable.
De Sitter universe	Willem de Sitter, 1917	Expanding flat space. Steady state. Λ > 0	"Motion without matter." Only apparently static. Based on Einstein's general relativity. Space expands with constant acceleration. Scale factor increases exponentially (constant inflation).
MacMillan universe	William Duncan MacMillan 1920s	Static and steady state	New matter is created from radiation; starlight perpetually recycled into new matter particles.
Friedmann universe, spherical space	Alexander Friedmann 1922	Spherical expanding space. k= +1 ; no Λ	Positive curvature. Curvature constant k = +1 Expands then re-collapses. Spatially closed (finite).
Friedmann universe, hyperbolic space	Alexander Friedmann, 1924	Hyperbolic expanding space. k= -1 ; no Λ	Negative curvature. Said to be infinite (but ambiguous). Unbounded. Expands forever.
Dirac large numbers hypothesis	Paul Dirac 1930s	Expanding	Demands a large variation in G, which decreases with time. Gravity weakens as universe evolves.
Friedmann zero-curvature	Einstein and De Sitter, 1932	Expanding flat space k= 0 ; Λ = 0 Critical density	Curvature constant k = 0. Said to be infinite (but ambiguous). "Unbounded cosmos of limited extent". Expands forever. "Simplest" of all known universes. Named after but

			not considered by Friedmann. Has a deceleration term q =½, which means that its expansion rate slows down.
The original Big Bang(Friedmann-Lemaître)	Georges Lemaître1927–29	Expansion $\Lambda > 0$ $\Lambda >$ |Gravity|	Λ is positive and has a magnitude greater than gravity. Universe has initial high-density state ("primeval atom"). Followed by a two-stage expansion. Λ is used to destabilize the universe. (Lemaître is considered the father of the big bang model.)
Oscillating universe(Friedmann-Einstein)	Favored by Friedmann, 1920s	Expanding and contracting in cycles	Time is endless and beginningless; thus avoids the beginning-of-time paradox. Perpetual cycles of big bang followed by big crunch. (Einstein's first choice after he rejected his 1917 model.)
Eddington universe	Arthur Eddington1930	First static then expands	Static Einstein 1917 universe with its instability disturbed into expansion mode; with relentless matter dilution becomes a De Sitter universe. Λ dominates gravity.
Milne universe of kinematic relativity	Edward Milne, 1933, 1935; William H. McCrea, 1930s	Kinematic expansion without space expansion	Rejects general relativity and the expanding space paradigm. Gravity not included as initial assumption. Obeys cosmological principle and special relativity; consists of a finite spherical cloud of particles (or

			galaxies) that expands within an infinite and otherwise empty flat space. It has a center and a cosmic edge (surface of the particle cloud) that expands at light speed. Explanation of gravity was elaborate and unconvincing.
Friedmann–Lemaître–Robertson–Walker class of models	Howard Robertson, Arthur Walker, 1935	Uniformly expanding	Class of universes that are homogeneous and isotropic. Spacetime separates into uniformly curved space and cosmic time common to all co-moving observers. The formulation system is now known as the FLRW or Robertson–Walker metrics of cosmic time and curved space.
Steady-state expanding	Hermann Bondi, Thomas Gold, 1948	Expanding, steady state, infinite	Matter creation rate maintains constant density. Continuous creation out of nothing from nowhere. Exponential expansion. Deceleration term q = -1.
Steady-state expanding	Fred Hoyle 1948	Expanding, steady state; but unstable	Matter creation rate maintains constant density. But since matter creation rate must be exactly balanced with the space expansion rate the system is unstable.
Ambiplasma	Hannes Alfvén1965 Oskar Klein	Cellular universe, expanding by means of matter-antimatter annihilation	Based on the concept of plasma cosmology. The universe is viewed as "meta-galaxies" divided by double layers and thus a bubble-like nature. Other

			universes are formed from other bubbles. Ongoing cosmic matter-antimatter annihilations kee p the bubbles separated and moving apart preventing them from interacting.
Brans–Dicke theory	Carl H. Brans, Robert H. Dicke	Expanding	Based on Mach's principle. G varies with time as universe expands. "But nobody is quite sure what Mach's principle actually means."[*citation needed*]
Cosmic inflation	Alan Guth 1980	Big Bang modified to solve horizon and f latness problems	Based on the concept of hot inflation. The universe is viewed as a multiple quantum flux—hence its bubble-like nature. Other universes are formed from other bubbles. Ongoing cosmic expansion kept the bubbles separated and moving apart.
Eternal inflation (a multiple universe model)	Andreï Linde, 1983	Big Bang with cosmic inflation	Multiverse based on the concept of cold inflation, in which inflationary events occur at random each with independent initial conditions; some expand into bubble universes supposedly like our entire cosmos. Bubbles nucleate in a spacetime foam.
Cyclic model	Paul Steinhardt; Neil Turok 2002	Expanding and contracting in cycles; M-theory.	Two parallel orbifold planes or M-branes collide periodically in a higher-dimensional space.

			With quintessence or dark energy.
Cyclic model	Lauris Baum; Paul Frampton 2007	Solution of Tolman's entropy problem	Phantom dark energy fragments universe into large number of disconnected patches. Our patch contracts containing only dark energy with zero entropy.

Gravity and The Downward Force of Gravitational Acceleration: Alternate Causal Mechanisms

The Official Science on Gravity:

"No, no, no...The Earth has always been Pear-Shaped. It's just so subtle and elusive that you cannot see it…like curvature...or satellites...or Gravity...or Gravitons…or Dark Matter...or billions of Light Years…or Dark Energy...or Alien Life…or Black Holes...or Evolution...or The Big Bang."

--Modern Science

Measurements of attraction do not confirm Gravity.

Using The International Gravity Standardization Net 1971 (I.G.S.N.71 measurements does not confirm Gravity. It only gives descriptive data concerning physical motion, and that is all. You do not need to provide measurements to confirm a force. Measurements only describe behavior, but they do not give the casual locus of that behavior.

They are only measurements of material interaction. The cause can be from any number of things inherent within the properties of matter. The Predicted mechanism for downward acceleration can include any number of

well-known mechanism, including various dielectric, electro static, quantum electro dynamic, and electromagnetic forces, ferrous and nonferrous electromagnetism, and the bipolarity the Aetheric wind. But assuming it is some special property called Gravity is not a scientific claim.

"Gravity", Misnamed, is Actually The Interrelationship Between:

1) Object Density
2) The Index of Buoyancy of an Object
3) Dielectric Forces
4) Electrostatic Attraction
5) Ferrous and Non-Ferrous Magnetism
6) Electromagnetic Forces
7) Aerodynamic Resistance
8) Thermodynamic Exchange
9) The Result of an Object in a Particular Atmospheric Medium
10) The "Aetheric Wind" (Luminiferous Aether)

At no point is an imaginary gravitational acceleration and attractive force mediated and emanating from trillions and trillions of invisible, massless Quantum Gravitons either necessary, nor beneficial, for predicting or calculating Newtonian motion.

The Downward Force From the Inter-Relationship Between Molecular Density and Buoyancy

Please ask yourself how great a "gravitational" force would be required to hold 535 quintillion gallons of water to a spinning ball? Take a 1 square mile of ocean, 500 feet deep, how much force is required to keep that square mile

on a ball, yet butterflies, birds, insects all can fly about with relative ease. The force needed to keep all that water stuck to a ball would be so great you wouldn't be able to move a limb and your lungs would collapse in seconds.

But if you consider the relative collective mass of The Oceans, and that water is heavier than air, then suddenly everything makes sense. No invisible force if pulling the oceans down. In the simplest sense, they are simply held down by the fundamental dynamism inherent within the basic relationship between molecular density to the surrounding atmosphere.

We call this basic relationship between molecular density to the surrounding atmosphere medium: Buoyancy.

The Downward Force: The Earth's Spherical Symmetry and its Effects on of Magnetism and Electromagnetism

There are many varieties of magnetism, and so ferrous elements are not necessary for The Earth's Magnetic Field to manipulate objects. Additionally, Quantum Electro Dynamics and Chromo Electro Dynamics clearly explain how non-ferrous elements, down to the Gluon and Quark levels, exhibit magnetic properties in The Earth's Spherical Symmetry. The Earth requires no Gravitational Field to manipulate objects, ferrous or not.

Hierarchy of types of *Magnetism:

1. Diamagnetism
2. Paramagnetism
3. Ferromagnetism
4. Antiferromagnetism
5. Ferrimagnetism
6. Superparamagnetism

***More on types of Magnetism later**

And so, we definitely have both force and vector components to matter, based solely upon matter's atomic structure, as opposed to emanating from any ferrous magnetic properties that may seem improbable with regard to human bodies.

Additionally, we manipulate electromagnetism every day, and hence know of its existence. Your car stereo speakers are based upon electromagnetic principles. However, we never manipulate Gravitational fields or use Gravity in any practical engineering applications ever, since it does not exist. We manipulate weight, but weight, as was stated, is the difference between the dielectric displacement within a mass and the dielectric displacement outside the mass in the Aetheric wind creates a DOWN-FORCE in the direction of the negative polarity, as the "Aetheric wind" "blows" through a mass."

Weight more specifically is:

- Location Specific
- Medium Specific
- Vector Specific
- Magnitude Specific
- Phase Specific
- Field Coherency Specific

The Downward Force and Gauss's Law

In physics and electromagnetism, Gauss's law, also known as Gauss's flux theorem, (or sometimes simply called Gauss's theorem) is a law relating the distribution of electric charge to the resulting electric field. In its integral form, it states that the flux of the electric field out of an arbitrary closed

surface is proportional to the electric charge enclosed by the surface, irrespective of how that charge is distributed.

Even though the law alone is insufficient to determine the electric field across a surface enclosing any charge distribution, this may be possible in cases where symmetry mandates uniformity of the field, resulting in a downward force of bodies above The Earth.

The Downward Force as a Function of Electrostatic Attraction

Electrostatics is a branch of physics that studies electric charges at rest (static electricity).

Since classical times, it has been known that some materials, such as amber, attract lightweight particles after rubbing. The Greek word (elektron), (amber) was thus the source of the word 'electricity'. Electrostatic phenomena arise from the forces that electric charges exert on each other. Such forces are described by Coulomb's law. Even though electrostatically induced forces seem to be rather weak, some electrostatic forces such as the one between an electron and a proton, that together make up a hydrogen atom, is about 36 orders of magnitude stronger than the gravitational force acting between them.

There are many examples of electrostatic phenomena, from those as simple as the attraction of plastic wrap to one's hand after it is removed from a package, to the apparently spontaneous explosion of grain silos, the damage of electronic components during manufacturing, and photocopier & laser printer operation. Electrostatics involves the buildup of charge on the surface of objects due to contact with other surfaces. Although charge exchange happens whenever any two surfaces contact and separate, the effects of charge exchange are usually noticed only when at least one of the surfaces has a high resistance to electrical flow, because the charges that transfer are

trapped there for a long enough time for their effects to be observed. These charges then remain on the object until they either bleed off to ground, or are quickly neutralized by a discharge. The familiar phenomenon of a static "shock" is caused by the neutralization of charge built up in the body from contact with insulated surfaces.

The Downward Force as a Function of Coulomb's Law

Coulomb's Law, or Coulomb's Inverse-Square Law, is an experimental law of physics, similar to Newtons Law of Gravitational Attraction, that quantifies the amount of force between two stationary, electrically charged particles. The electric force between charged bodies at rest is conventionally called electrostatic force or Coulomb force. Although the law was known earlier, it was first published in 1785 by French physicist Charles-Augustin de Coulomb, hence the name. Coulomb's law was essential to the development of the theory of electromagnetism, maybe even its starting point, as it made it possible to discuss the quantity of electric charge in a meaningful way.

The law states that the magnitude of the electrostatic force of attraction or repulsion between two point charges is directly proportional to the product of the magnitudes of charges and inversely proportional to the square of the distance between them.

The Downward Force and Magneto-Dielectricity

Magneto-dielectricity acts as the balancing focal point of all waves, the center point of all waves. See my presentations re the wave and the ecliptic.

1) One: Magneto-Dielectricity is the standing/ longitudinal wave: ***rarefaction-compression**, centripetal convergence, and centrifugal divergence (see: Nikola Tesla)
2) The other: electromagnetic is the ***Hertzian/ transverse radio waves** (see: Heinrich Hertz)

- One is a pulse, the other is a wave/polarity
- One is magneto-dielectric/the other is electromagnetic/physical

***rarefaction-compression is a region in a longitudinal wave where the particles are closest together. A rarefaction is a region in a longitudinal wave where the particles are furthest apart. ... The region where the medium is compressed is known as a compression and the region where the medium is spread out is known as a rarefaction.**

--Wikipedia

***Hertzian Radio Waves are a type of electromagnetic radiation with wavelengths in the electromagnetic spectrum longer than infrared radiation. Radio waves have frequencies as high as 300 gigahertz (GHz) to as low as 30 hertz (Hz). At 300 GHz, the corresponding wavelength is 1 mm (shorter than a grain of rice); at 30 Hz the corresponding wavelength is 10,000 km (longer than the radius of the Earth). Like all electromagnetic waves, radio waves in a vacuum travel at the speed of light, and in the Earth's atmosphere at a close, but slightly lower speed. Radio waves are generated by charged particles undergoing acceleration, such as time-varying electric currents. Naturally occurring radio waves are emitted by lightning and astronomical objects, and are part of the blackbody radiation emitted by all warm objects.**

--Wikipedia

There Are Three Field Modalities: Gravity is a Myth

1. Dielectricity

2. Magnetism

3. Electricity

Newton's Laws and the Electrical Force

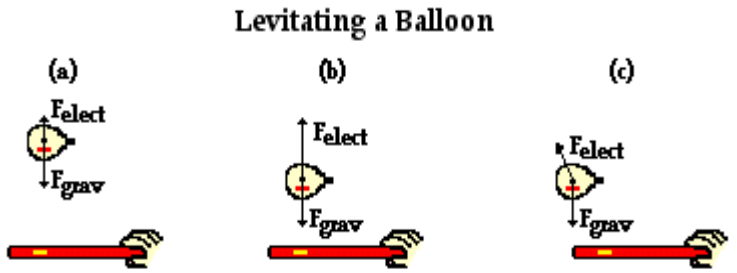
The attractive or repulsive interaction between any two charged objects is an **electric force**. Like any force, its effect upon objects is described by Newton's laws of motion. The electric force - F_{elect} - joins the long list of other forces that can act upon objects. Newton's laws are applied to analyze the motion (or lack of motion) of objects under the influence of such a force or combination of forces. The analysis usually begins with the construction of a free-body diagram in which the type and direction of the individual forces are represented by vector arrows and labeled according to type. The magnitudes of the forces are then added as vectors in order to determine the resultant sum, also known as the net force. The net force can then be used to determine the acceleration of the object.

In some instances, the goal of the analysis is not to determine the acceleration of the object. Instead, the free-body diagram is used to determine the spatial separation or charge of two objects that are at static equilibrium. In this case, the free-body diagram is combined with an understanding of vector principles in order to determine some unknown quantity in the midst of a puzzle involving geometry, trigonometry and Coulomb's law. In this last section of Lesson 3, we will explore both types of applications of Newton's laws to static electricity phenomenon.

Electric Force and Acceleration

Suppose that a rubber balloon and a plastic golf tube are both charged negatively by rubbing them with animal fur. Suppose that the balloon is tossed up into the air and the golf tube is held beneath it in an effort to *levitate* the balloon in midair. This goal would be accomplished when the spatial separation between charged objects is adjusted such that the

downward gravity force (F_{grav}) and the upward electric force (F_{elect}) are balanced. This would present a difficult task of manipulation as the balloon would constantly move from side to side and up and down under the influences of both the gravity force and the electric force. When the golf tube is held too far below the balloon, the balloon would fall and accelerate downward. This would in turn decrease the separation distance and lead to an increase in the electric force. As the F_{elect} increases, it would likely exceed the F_{grav} and the balloon would suddenly accelerate upward. And finally, if the *point of charge* on the golf tube is not directly under the *point of charge* of the balloon (a likely scenario), the electric force would be exerted at an angle to the vertical and the balloon would have a sideways acceleration. The likely result of such an effort to levitate the balloon would be a variety of instantaneous accelerations in a variety of directions.



(a) When the charged tube is held too far from the charged balloon, the repulsion force is less; the acceleration of the balloon is downward. (b) When the charged tube is held too close to the charged balloon, the repulsion force is greater; the acceleration of the balloon is upward. (c) When the charged tube is not directly beneath the charged balloon, there is a sideways acceleration.

Suppose that at some instant in the process of trying to levitate the balloon, the following conditions existed:

A 0.90-gram balloon with a charge of -75 nC is located a distance of 12 cm above a plastic golf tube that has a charge of -83 nC.

How could one apply Newton's laws to determine the acceleration of the balloon at this instant?

Like any problem involving force and acceleration, the problem would begin with the construction of a free-body diagram. There are two forces acting upon the balloon. The force of gravity on the balloon is directed

downward. The electric force on the balloon is exerted upward since the balloon and golf tube are like-charged and the golf tube is held below the balloon. These two forces are shown in the free-body diagram at the right. The second step involves determining the magnitude of these two forces. The force of gravity is determined by multiplying the mass (in kilograms) by the acceleration of gravity.

$$F_{grav} = m \bullet g = (0.00090 \text{ kg}) \bullet (9.8 \text{ m/s/s})$$
$$F_{grav} = 8.82 \times 10^{-3} \text{ N, down}$$

The electric force is determined using Coulomb's law. As shown below, the appropriate unit on charge is the Coulomb (C) and the appropriate unit on distance is meters (m). Use of these units will result in a force unit of the Newton. The demand for these units emerges from the units on Coulomb's constant.

$$F_{elect} = k \bullet Q_1 \bullet Q_2 / d^2$$
$$F_{elect} = (9 \times 10^9 \text{ N} \bullet \text{m}^2/\text{C}^2) \bullet (-75 \times 10^{-9} \text{ C}) \bullet (-83 \times 10^{-9} \text{ C}) / (0.12)^2$$
$$F_{elect} = 3.89 \times 10^{-3} \text{ N, up}$$

The net force is the vector sum of these two forces. The upward and downward forces are added together as vectors.

$$F_{net} = \cdot F = F_{grav} \text{ (down)} + F_{elect} \text{ (up)}$$
$$F_{net} = 8.82 \times 10^{-3} \text{ N, down} + 3.89 \times 10^{-3} \text{ N, up}$$
$$F_{net} = 4.93 \times 10^{-3} \text{ N, down}$$

The final step of this problem involves the use of Newton's second law to determine the acceleration of the object. The acceleration is the net force divided by the mass (in kilograms).

$$a = F_{net} / m = (4.93 \times 10^{-3} \text{ N, down}) / (0.00090 \text{ kg})$$
$$\mathbf{a = 5.5 \text{ m/s/s, down}}$$

The above analysis illustrates how Newton's law and Coulomb's law can be applied to determine an instantaneous acceleration. The next analysis involves a case in which two objects are in a state of static equilibrium.

Luminiferous Aether

Luminiferous Aether or ether ("luminiferous", meaning "light-bearing") was the postulated medium for the propagation of light. It was invoked to explain the ability of the apparently wave-based light to propagate through empty space (a vacuum), something that waves should not be able to do. The assumption of a spatial plenum of luminiferous Aether, rather than a spatial vacuum, provided the theoretical medium that was required by wave theories of light.

The Aether hypothesis was the topic of considerable debate throughout its history, as it required the existence of an invisible and infinite material with no interaction with physical objects. As the nature of light was explored, especially in the 19th century, the physical qualities required of an Aether became increasingly contradictory. By the late 1800s, the existence of the Aether was being questioned, although there was no physical theory to replace it.

The negative outcome of the Michelson–Morley experiment (1887) suggested that the Aether did not exist, a finding that was confirmed in subsequent experiments through the 1920s. This led to considerable theoretical work to explain the propagation of light without an Aether. A major breakthrough was the theory of relativity, which could explain why the experiment failed to see Aether, but was more broadly interpreted to suggest that it was not needed.

The Michelson-Morley experiment, along with the blackbody radiator and photoelectric effect, was a key experiment in the development of modern physics, which includes both relativity and quantum theory, the latter of which explains the particle-like nature of light.

The Primary Heliocentric Version of Gravity

According to The Heliocentric Model, there is a shared gravitational property to all matter, which accounts for what we call, "the gravitational force". Gravity is thought to be the result of an invisible, unconfirmed, theoretical particle known as The Quantum Graviton. When we consider the homogeneous summation of these collective molecular vectors, resulting in the spherical symmetry of Earth, all the horizontal components cancel out, resulting in an amalgamated downward force towards the center of The Earth.

The overall Spherical Symmetry of The Earth is an assumption that Heliocentrists operate beneath in order to derive various mathematical models concerning the way in which upward, and side to side gravitational vectors cancel out in a spherical model, resulting in the downward force called gravitational acceleration.

Obviously, everything about this model is theoretical and purely mathematical. Nobody has ever seen this spherical Earth that is assumed, other than in fake NASA CGI images, and fake images from other space agencies, as well as Hollywood science fiction films. The spherical Earth theory is a theory, even according to modern science.

Add to all this, the alleged Centrifugal Force created by the Earth's alleged spin, and one begins to see how may mathematical variables are taken into account when attempting to understand what Gravity is and what it's strength might be at various positions upon the Earth.

Subsequently, Gravimetry is employed to measure the gravitational acceleration at given points on the Earth. Gravimetry is the measurement of the strength of a gravitational field. Gravimetry may be used when either the

magnitude of a gravitational field or the properties of matter responsible for its creation are of interest.

Gravitational Acceleration

In physics, gravitational acceleration is the acceleration of an object in free fall within a vacuum (and thus without experiencing drag). This is the steady gain in speed caused exclusively by the force of gravitational attraction. At a fixed point on the Earth's surface, all bodies accelerate in vacuum at the same rate, regardless of the masses or compositions of the bodies; the measurement and analysis of these rates is known as gravimetry.

At different points on Earth's surface, the free fall acceleration ranges from 9.764 m/s2 to 9.834 m/s2 depending on altitude, latitude, and longitude. A conventional standard value is defined exactly as 9.80665 m/s2 (approximately 32.17405 ft/s2). Locations of significant variation from this value are known as gravity anomalies. This does not take into account other effects, such as buoyancy or drag.

Relation to the Universal Law

Newton's law of universal gravitation states that there is a gravitational force between any two masses that is equal in magnitude for each mass, and is aligned to draw the two masses toward each other. The formula is:

$$F = G\frac{m_1 m_2}{r^2}$$

Using the integral form of Gauss's Law, this formula can be extended to any pair of objects of which one is far more massive than the other — like a planet relative to any man-scale artefact. The distances between planets and between the planets and the Sun are (by many orders of magnitude) larger than the sizes of the sun and the planets. In consequence both the sun and the planets can be considered as point masses and the same formula applied to planetary motions. (As planets and natural satellites form pairs of

comparable mass, the distance 'r' is measured from the common centers of mass of each pair rather than the direct total distance between planet centers.)

If one mass is much larger than the other, it is convenient to take it as observational reference and define it as source of a gravitational field of magnitude and orientation given by:

$$\mathbf{g} = -\frac{GM}{r^2}\hat{\mathbf{r}}$$

This model represents the "far-field" gravitational acceleration associated with a massive body. When the dimensions of a body are not trivial compared to the distances of interest, the principle of superposition can be used for differential masses for an assumed density distribution throughout the body in order to get a more detailed model of the "near-field" gravitational acceleration. For satellites in orbit, the far-field model is sufficient for rough calculations of altitude versus period, but not for precision estimation of future location after multiple orbits.

The more detailed models include (among other things) the bulging at the equator for the Earth, and irregular mass concentrations (due to meteor impacts) for the Moon. The Gravity Recovery and Climate Experiment (GRACE) mission launched in 2002 consists of two probes, nicknamed "Tom" and "Jerry", in polar orbit around the Earth measuring differences in the distance between the two probes in order to more precisely determine the gravitational field around the Earth, and to track changes that occur over time. Similarly, the Gravity Recovery and Interior Laboratory mission from 2011-2012 consisted of two probes ("Ebb" and "Flow") in polar orbit around the Moon to more precisely determine the gravitational field for future navigational purposes, and to infer information about the Moon's physical makeup.

--Wikipedia

Centrifugal Force

The centrifugal force is proportional to the tangential speed of the rotating reference frame. Since centrifugal force points outwards from the center of rotation, it tends to cancel out a little bit of earth's gravity. If the earth were not spinning, you would be heavier as you would feel the full force of gravity

In Newtonian mechanics, the centrifugal force is an inertial force (also called a "fictitious" or "pseudo" force) that appears to act on all objects when viewed in a rotating frame of reference. It is directed away from an axis which is parallel to the axis of rotation and passing through the coordinate system's origin. If the axis of rotation passes through the coordinate system's origin, the centrifugal force is directed radially outwards from that axis. The magnitude of centrifugal force F on an object of mass m at the distance r from the origin of a frame of reference rotating with angular velocity ω is:

F=m * w^2 * r

Vectors

A vector is an object that has both a magnitude and a direction. Geometrically, we can picture a vector as a directed line segment, whose length is the magnitude of the vector and with an arrow indicating the direction. The direction of the vector is from its tail to its head.

In mathematics and physics, a vector is an element of a vector space. For many specific vector spaces, the vectors have received specific names, which are listed below.

Historically, vectors were introduced in geometry and physics (typically in mechanics) before the formalization of the concept of vector space. Therefore, one often talks about vectors without specifying the vector space to which they belong. Specifically, in a Euclidean space, one considers spatial vectors, also called Euclidean vectors which are used to represent quantities that have both magnitude and direction, and may be added, subtracted and scaled (i.e. multiplied by a real number) for forming a vector space.

Vector Space

In mathematics, physics, and engineering, a vector space (also called a linear space) is a set of objects called vectors, which may be added together and multiplied ("scaled") by numbers called scalars. Scalars are often real numbers, but some vector spaces have scalar multiplication by complex numbers or, generally, by a scalar from any mathematic field. The operations of vector addition and scalar multiplication must satisfy certain requirements, called vector axioms (listed below in § Definition). To specify whether the scalars in a particular vector space are real numbers or complex numbers, the terms real vector space and complex vector space are often used.

Magnitude

In mathematics, the magnitude or size of a mathematical object is a property which determines whether the object is larger or smaller than other objects of the same kind. More formally, an object's magnitude is the displayed result of an ordering (or ranking)—of the class of objects to which it belongs.

In physics, magnitude can be defined as quantity or distance.

Spherical Symmetry: The Assumption of Spherical Symmetry in the Calculation of The Downward Vector of Gravity

The overall Spherical Symmetry of The Earth is an assumption that Heliocentrists operate beneath in order to derive various mathematical models concerning the way in which upward, and side to side gravitational vectors cancel out in a spherical model.

Additionally, Spherical Symmetry is the term used for describing the geometry of stars and planets in general relativity. Assuming Spherical Symmetry of Earth gives mathematicians a somewhat simple mathematical formulation for dealing with Earth's theoretical gravitational field.

Gravitational Attraction of Spherical Bodies: A Uniform Sphere

The Shell Theorem states that a spherically symmetric object affects other objects as if all of its mass were concentrated at its center.

Key Points

- Since force is a vector quantity, the vector summation of all parts of the shell contribute to the net force, and this net force is the equivalent of one force measurement taken from the sphere's midpoint, or center of mass (COM).
- The gravitational force on an object within a hollow spherical shell is zero.

- The gravitational force on an object within a uniform spherical mass is linearly proportional to its distance from the sphere's center of mass (COM).

Term: Center of Mass

The Center of Mass (COM) is the unique point at the center of a distribution of mass in space that has the property that the weighted position vectors relative to this point sum to zero.

The Law of Universal Gravitation states that the gravitational force between two points of mass is proportional to the magnitudes of their masses and the inverse-square of their separation, d*d*:

F=GmM/d^2

However, most objects are not point particles. Finding the gravitational force between three-dimensional objects requires treating them as points in space. For highly symmetric shapes such as spheres or spherical shells, finding this point is simple.

The Shell Theorem

Isaac Newton confirmed the Shell Theorem, which states that:

1. A spherically symmetric object affects other objects gravitationally as if all of its mass were concentrated at its center,
2. If the object is a spherically symmetric shell (i.e., a hollow ball) then the net gravitational force on a body *inside* of it is zero.

Since force is a vector quantity, the vector summation of all parts of the shell/sphere contribute to the net force, and this net force is the equivalent of one force measurement taken from the sphere's midpoint, or center of mass (COM). So when finding the force of gravity exerted on a ball of 10 kg, the distance measured from the ball is taken from the ball's center of mass to the earth's center of mass.

Given that a sphere can be thought of as a collection of infinitesimally thin, concentric, spherical shells (like the layers of an onion), then it can be shown that a corollary of the Shell Theorem is that the force exerted in an object inside of a solid sphere is only dependent on the mass of the sphere inside of the radius at which the object is. That is because shells at a greater radius than the one at which the object is, do *not* contribute a force to an object inside of them (Statement 2 of theorem).

When considering the gravitational force exerted on an object at a point *inside* or *outside* a uniform spherically symmetric object of radius R*R*, there are two simple and distinct situations that must be examined: the case of a hollow spherical shell, and that of a solid sphere with uniformly distributed mass.

Case 1: A Hollow Spherical Shell

The gravitational force acting by a spherically symmetric shell upon a point mass *inside* it, is the vector sum of gravitational forces acted by each part of the shell, and this vector sum is equal to zero. That is, a mass m*m within* a spherically symmetric shell of mass M*M*, will feel no net force (Statement 2 of Shell Theorem).

The net gravitational force that a spherical shell of mass M*M* exerts on a body *outside* of it, is the vector sum of the gravitational forces acted by each part of the shell on the outside object, which add up to a net force acting as if mass M*M* is concentrated on a point at the center of the sphere (Statement 1 of Shell Theorem).

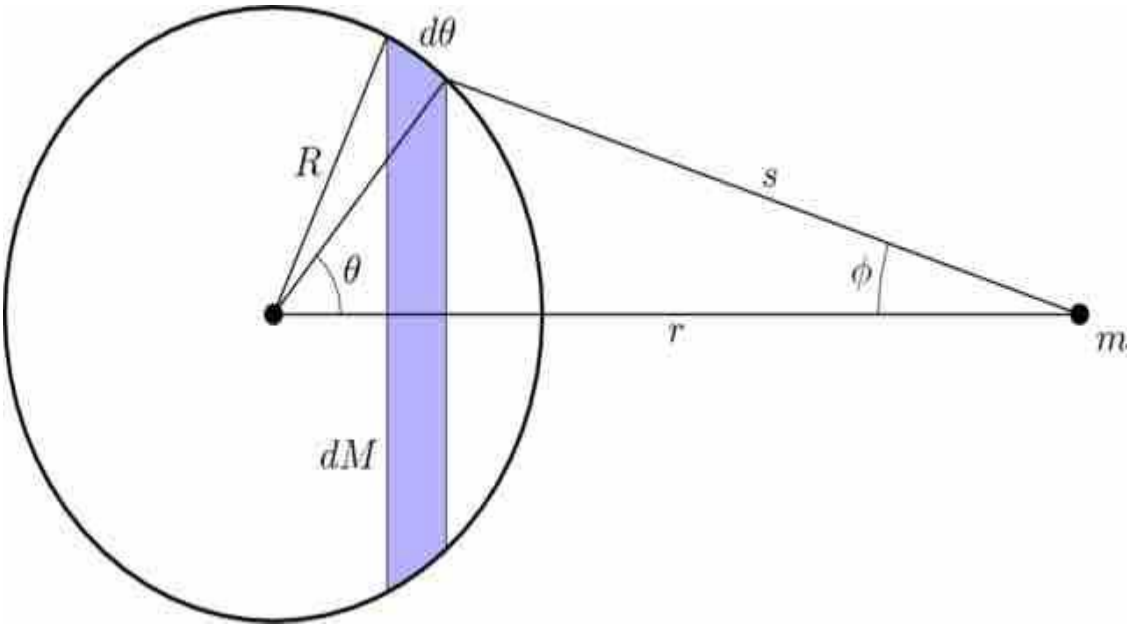


Diagram used in the confirmation of the Shell Theorem

This diagram outlines the geometry considered when proving The Shell Theorem. In particular, in this case a spherical shell of mass MM (left side of figure) exerts a force on mass mm (right side of the figure) outside of it. The surface area of a thin slice of the sphere is shown in color.

Case 2: A Solid, Uniform Sphere

The second situation we will examine is for a solid, uniform sphere of mass M*M* and radius R*R*, exerting a force on a body of mass m*m* at a radius d*d inside* of it (that is, d< R*d*<*R*). We can use the results and corollaries of the Shell Theorem to analyze this case. The contribution of all shells of the sphere at a radius (or distance) greater than d*d* from the sphere's center-of-mass can be ignored (see above corollary of the Shell Theorem). Only the mass of the sphere within the desired radius M_{<d}*M*<*d*(that is the mass of the sphere inside d*d*) is relevant, and can be considered as a point mass at the center of the sphere. So, the gravitational force acting upon point mass m*m* is:

F=GmM<d

As in the case of hollow spherical shells, the net gravitational force that a solid sphere of uniformly distributed mass M*M* exerts on a body *outside* of it, is the vector sum of the gravitational forces acted by each shell of the sphere on the outside object. The resulting net gravitational force acts as if mass M*M* is concentrated on a point at the center of the sphere, which is the center of mass, or COM (Statement 1 of Shell Theorem). More generally, this result is true even if the mass M*M* is *not* uniformly distributed, but its density varies radially (as is the case for planets).

https://phys.libretexts.org/Bookshelves/University_Physics/Book%3A_Physics_(Boundless)/5%3A_Uniform_Circular_Motion_and_Gravitation/5.5%3A_Newtons_Law_of_Universal_Gravitation

The Shell Theorem

In classical mechanics, the shell theorem gives gravitational simplifications that can be applied to objects inside or outside a spherically symmetrical body. This theorem has particular application to astronomy.

Isaac Newton confirmed the shell theorem and stated that:

1. A spherically symmetric body affects external objects gravitationally as though all of its mass were concentrated at a point at its center.
2. If the body is a spherically symmetric shell (i.e., a hollow ball), no net gravitational force is exerted by the shell on any object inside, regardless of the object's location within the shell.

A corollary is that inside a solid sphere of constant density, the gravitational force within the object varies linearly with distance from the center, becoming zero by symmetry at the center of mass. This can be seen as follows: take a point within such a sphere, at a distance "r" from the center of the sphere. Then you can ignore all the shells of greater radius, according to

The Shell Theorem. So, the remaining mass "m" is proportional to r^3 (because it is based on volume), and the gravitational force exerted on it is proportional to m/r^2 (inverse square law), so the overall gravitational effect is proportional to r^3/r^2, so is linear in "r".

These results were important to Newton's analysis of planetary motion; they are not immediately obvious, but they can be confirmed with calculus. (Alternatively, Gauss's law for gravity offers a much simpler way to confirm the same results.)

In addition to gravity, the shell theorem can also be used to describe the electric field generated by a static spherically symmetric charge density, or similarly for any other phenomenon that follows an inverse square law. The derivations below focus on gravity, but the results can easily be generalized to the electrostatic force.

Derivation Of Gravitational Field Outside of a Solid Sphere

There are three steps to proving Newton's shell theorem. First, the equation for a gravitational field due to a ring of mass will be derived. Arranging an infinite number of infinitely thin rings to make a disc, this equation involving a ring will be used to find the gravitational field due to a disk. Finally, arranging an infinite number of infinitely thin discs to make a sphere, this equation involving a disc will be used to find the gravitational field due to a sphere.

Newton's Confirmations: Propositions 70 and 71

Propositions 70 and 71 consider the force acting on a particle from a hollow sphere with an infinitesimally thin surface, whose mass density is constant over the surface. The force on the particle from a small area of the surface of the sphere is proportional to the mass of the area and inversely as the square of its distance from the particle. The first proposition considers the case when the particle is inside the sphere, the second when it is outside.

The use of infinitesimals and limiting processes in geometrical constructions are simple and elegant and avoid the need for any integrations. They well illustrate Newton's method of proving many of the propositions in the Principia.

His confirmation of Propositions 70 is trivial. In the following, it is considered in slightly greater detail than Newton provides.

The confirmation of Proposition 71 is more historically significant. It forms the first part of his confirmation that the gravitational force of a solid sphere acting on a particle outside it is inversely proportional to the square of its distance from the center of the sphere, provided the density at any point inside the sphere is a function only of its distance from the center of the sphere.

Although the following are completely faithful to Newton's confirmations, very minor changes have been made to attempt to make them clearer.

--Wikipedia

Gauss's Law For Gravity

In physics, Gauss's Law For Gravity, also known as Gauss's Flux Theorem for Gravity, is a law of physics that is equivalent to Newton's Law of Universal Gravitation. It is named after Carl Friedrich Gauss. Gauss's law for gravity is often more convenient to work from than is Newton's law.

The form of Gauss's Law For Gravity is mathematically similar to Gauss's Law For Electrostatics, one of Maxwell's equations. Gauss's Law For Gravity has the same mathematical relation to Newton's law that Gauss's law for electrostatics bears to Coulomb's Law. This is because both Newton's Law and Coulomb's Law describe inverse-square interaction in a 3-dimensional space.

Qualitative Statement of the Law

The gravitational field g (also called gravitational acceleration) is a vector field – a vector at each point of space (and time). It is defined so that the gravitational force experienced by a particle is equal to the mass of the particle multiplied by the gravitational field at that point.

Gravitational flux is a surface integral of the gravitational field over a closed surface, analogous to how magnetic flux is a surface integral of the magnetic field.

Gauss's law for gravity states:

The gravitational flux through any closed surface is proportional to the enclosed mass.

Integral Form

The integral form of Gauss's law for gravity states:

$$\mathbf{g} \cdot d\mathbf{A} = -4\pi GM$$

Where:

- $\oiint$ denotes a surface integral over a closed surface
- ∂V is any closed surface (the boundary of an arbitrary volume V)
- dA is a vector, whose magnitude is the area of an infinitesimal piece of the
- surface ∂V, and whose direction is the outward-pointing surface normal (see surface integral for more details)
- g is the gravitational field
- G is the universal gravitational constant, and
- M is the total mass enclosed within the surface ∂V.

The left-hand side of this equation is called the flux of the gravitational field. Note that according to the law it is always negative (or zero), and never positive. This can be contrasted with Gauss's law for electricity, where the flux can be either positive or negative. The difference is because charge can be either positive or negative, while mass can only be positive.

Space Egg Earth

Regardless, however, scientists still say that The Earth is not a perfectly symmetrical sphere. At equator it is said to bulge and at poles it is somewhat flat. And so it is said to be an egg shape, which complicates the Spherical Symmetry equations of a sphere. To combat this complexity, scientists use Gravimeters at different places on The Earth to construct a more accurate Geodesical mapping than just pure mathematics could offer, alone. With Gravimeters, scientists attempt to map The Earth's gravitational topography and how its strength varies according to different places on The Earth, as well as different altitudes above The Earth.

The Graviton: A Hypothetical Construct

In theories of quantum Gravity, the Graviton is the hypothetical quantum of Gravity, an elementary particle that mediates the force of gravitational interaction. There is no complete quantum field theory of Gravitons due to an outstanding mathematical problem with renormalization

in general relativity. In string theory, believed to be a consistent theory of quantum Gravity, the Graviton is a massless state of a fundamental string.

If it exists, the Graviton is expected to be massless because the gravitational force has a very long range, and appears to propagate at the speed of light. The Graviton must be a spin-2 boson because the source of gravitation is the stress–energy tensor, a second-order tensor (compared with electromagnetism's spin-1 photon, the source of which is the four-current, a first-order tensor). Additionally, it can be shown that any massless spin-2 field would give rise to a force indistinguishable from gravitation, because a massless spin-2 field would couple to the stress–energy tensor in the same way that gravitational interactions do.

This result suggests that, if a massless spin-2 particle is discovered, it must be the Graviton.

Theory

It is hypothesized that gravitational interactions are mediated by an as yet undiscovered elementary particle, dubbed the graviton. The three other known forces of nature are mediated by elementary particles: electromagnetism by the photon, the strong interaction by gluons, and the weak interaction by the W and Z bosons. All three of these forces appear to be accurately described by the Standard Model of particle physics. In the classical limit, a successful theory of gravitons would reduce to general relativity, which itself reduces to Newton's law of gravitation in the weak-field limit.

History

The term graviton was originally coined in 1934 by Soviet physicists Dmitrii Blokhintsev and F.M. Gal'perin. A mediation of the gravitational interaction by particles was anticipated by Pierre-Simon Laplace. Just like Newton's anticipation of photons, Laplace's anticipated "gravitons" had a

greater speed than c, the speed of gravitons expected in modern theories, and were not connected to quantum mechanics or special relativity, since these theories didn't yet exist during Laplace's lifetime.

Gravitons and Renormalization

When describing graviton interactions, the classical theory of Feynman diagrams and semiclassical corrections such as one-loop diagrams behave normally. However, Feynman diagrams with at least two loops lead to ultraviolet divergences.[citation needed] These infinite results cannot be removed because quantized general relativity is not perturbatively renormalizable, unlike quantum electrodynamics and models such as the Yang–Mills theory. Therefore, incalculable answers are found from the perturbation method by which physicists calculate the probability of a particle to emit or absorb gravitons, and the theory loses predictive veracity. Those problems and the complementary approximation framework are grounds to show that a theory more unified than quantized general relativity is required to describe the behavior near the Planck scale.

Comparison With Other Forces

Like the force carriers of the other forces (see photon, gluon), gravitation plays a role in general relativity, in defining the spacetime in which events take place. In some descriptions energy modifies the "shape" of spacetime itself, and gravity is a result of this shape, an idea which at first glance may appear hard to match with the idea of a force acting between particles. Because the diffeomorphism invariance of the theory does not allow any particular space-time background to be singled out as the "true" space-time background, general relativity is said to be background-independent. In contrast, the Standard Model is not background-independent, with Minkowski space enjoying a special status as the fixed background space-time. A theory of quantum gravity is needed in order to reconcile these differences. Whether this theory should be background-independent is an

open question. The answer to this question will determine our understanding of what specific role gravitation plays in the fate of the universe.

Gravitons in Speculative Theories

String theory predicts the existence of gravitons and their well-defined interactions. A graviton in perturbative string theory is a closed string in a very particular low-energy vibrational state. The scattering of gravitons in string theory can also be computed from the correlation functions in conformal field theory, as dictated by the AdS/CFT correspondence, or from matrix theory.[citation needed]

A feature of gravitons in string theory is that, as closed strings without endpoints, they would not be bound to branes and could move freely between them. If we live on a brane (as hypothesized by brane theories), this "leakage" of gravitons from the brane into higher-dimensional space could explain why gravitation is such a weak force, and gravitons from other branes adjacent to our own could provide a potential explanation for dark matter. However, if gravitons were to move completely freely between branes, this would dilute gravity too much, causing a violation of Newton's inverse-square law. To combat this, Lisa Randall found that a three-brane (such as ours) would have a gravitational pull of its own, preventing gravitons from drifting freely, possibly resulting in the diluted gravity we observe, while roughly maintaining Newton's inverse square law

A theory by Ahmed Farag Ali and Saurya Das adds quantum mechanical corrections (using Bohm trajectories) to general relativistic geodesics. If gravitons are given a small but non-zero mass, it could explain the cosmological constant without need for dark energy and solve the smallness problem. The theory received an Honorable Mention in the 2014 Essay Competition of the Gravity Research Foundation for explaining the smallness of cosmological constant. Also the theory received an Honorable

Mention in the 2015 Essay Competition of the Gravity Research Foundation for naturally explaining the observed large-scale homogeneity and isotropy of the universe due to the proposed quantum corrections.

Energy and Wavelength

While gravitons are presumed to be massless, they would still carry energy, as does any other quantum particle. Photon energy and gluon energy are also carried by massless particles. It is unclear which variables might determine graviton energy, the amount of energy carried by a single graviton.

Alternatively, if gravitons are massive at all, the analysis of gravitational waves yielded a new upper bound on the mass of gravitons. The graviton's Compton wavelength is at least 1.6×1016 m, or about 1.6 light-years, corresponding to a graviton mass of no more than 7.7×10−23 eV/c2. This relation between wavelength and mass-energy is calculated with the Planck–Einstein relation, the same formula that relates electromagnetic wavelength to photon energy. However, if gravitons are the quanta of gravitational waves, then the relation between wavelength and corresponding particle energy is fundamentally different for gravitons than for photons, since the Compton wavelength of the graviton is not equal to the gravitational-wave wavelength. Instead, the lower-bound graviton Compton wavelength is about 9×109 times greater than the gravitational wavelength for the GW170104 event, which was ~ 1,700 km. The report did not elaborate on the source of this ratio. It is possible that gravitons are not the quanta of gravitational waves, or that the two phenomena are related in a different way.

Experimental Observation

Unambiguous detection of individual gravitons, though not prohibited by any fundamental law, is impossible with any physically reasonable detector. The reason is the extremely low cross section for the interaction of gravitons with matter. For example, a detector with the mass of Jupiter and 100% efficiency, placed in close orbit around a neutron star, would only be

expected to observe one graviton every 10 years, even under the most favorable conditions. It would be impossible to discriminate these events from the background of neutrinos, since the dimensions of the required neutrino shield would ensure collapse into a black hole.

LIGO and Virgo collaborations' observations have directly detected gravitational waves. Others have postulated that graviton scattering yields gravitational waves as particle interactions yield coherent states. Although these experiments cannot detect individual gravitons, they might provide information about certain properties of the graviton. For example, if gravitational waves were observed to propagate slower than c (the speed of light in a vacuum), that would imply that the graviton has mass (however, gravitational waves must propagate slower than c in a region with non-zero mass density if they are to be detectable). Recent observations of gravitational waves have put an upper bound of $1.2\times10-22$ eV/c2 on the graviton's mass. Astronomical observations of the kinematics of galaxies, especially the galaxy rotation problem and modified Newtonian dynamics, might point toward gravitons having non-zero mass.

Difficulties and Outstanding Issues

Most theories containing gravitons suffer from severe problems. Attempts to extend the Standard Model or other quantum field theories by adding gravitons run into serious theoretical difficulties at energies close to or above the Planck scale. This is because of infinities arising due to quantum effects; technically, gravitation is not renormalizable. Since classical general relativity and quantum mechanics seem to be incompatible at such energies, from a theoretical point of view, this situation is not tenable. One possible solution is to replace particles with strings. String theories are quantum theories of gravity in the sense that they reduce to classical general relativity plus field theory at low energies, but are fully quantum mechanical, contain a graviton, and are thought to be mathematically consistent.

--Wikipedia

The Gravitational Force

And so, according to The Heliocentric Model, every molecule of Earth, attracts every molecule of Earth, which is called, "the gravitational force". Gravity is thought to be the result of an invisible, unconfirmed, theoretical particle known as The Graviton. Combining the vectors of all the individual molecules, all the horizontal components cancel out, owing to the Earth's spherical symmetry, resulting in a combined downward force directed at The Earth's spherical center

In theories of quantum Gravity, the Graviton is the hypothetical quantum of Gravity, an elementary particle that mediates the force of gravitational interaction. There is no complete quantum field theory of Gravitons due to an outstanding mathematical problem with renormalization in General Relativity. In string theory, believed to be a consistent theory of quantum Gravity, the Graviton is a massless state of a fundamental string.

Though Gravitons are individually too weak to detect, most physicists believe the particles roam the quantum realm in droves, and that their behavior somehow collectively gives rise to the macroscopic force of gravity, just as light is a macroscopic effect of particles called photons.

The Law of Gravitational Attraction states that every particle of matter in the universe attracts every other with a force varying directly as the product of the masses and inversely as the square of the distance between them. Sometimes explained simply as mass to mass attraction. This manifests as a downward force with an acceleration of about 9.8 meters per second squared on objects on the surface of the Earth.

The magnitude of the downward force is slightly counteracted by the rotation of the Earth. This centrifugal force results in an upward force that slightly reduces the downward force.

The magnitude of the force is also affected by the slight oblateness of the Earth and the elevation of the observation because this changes the distance between the centers of mass. There are other factors that affect the measured downward force however, the magnitude of the effects is exceedingly small in comparison to the previously mentioned forces.

Factor in The Earth's Assumed Centrifugal Force

Also, because the Earth is said to be spinning, it's centrifugal force is said to be proportional to the tangential speed of the rotating reference frame. Since centrifugal force points outwards from the center of rotation, it is said to cancel out a little bit of Earth's Gravity. If the Earth were not spinning, you would be heavier as you would feel the full force of Gravity.

A Secondary and Erroneous Heliocentric Version of Gravity

Some Heliocentrist mistakenly claim that Gravity emanates from the center of the Earth from a spinning molten core, which is their mistaken conflation of the Earth's magnetic core with their idea of Gravity. Many Heliocentrists do not even know the official Gravitational Model.

Chapter 2

Fluid Dynamics, Magnetism, Electromagnetism, Field Modalities, and Motion

According to The Heliocentric Model, there is a shared gravitational property to all matter, which accounts for what we call, "the gravitational force". Gravity is thought to be the result of an invisible, unconfirmed, theoretical particle known as The Quantum Graviton. When we consider the homogeneous summation of these collective molecular vectors, resulting in the spherical symmetry of Earth, all the horizontal components cancel out, resulting in an amalgamated downward force towards the center of The Earth.

That's The Theory of Gravity.

But is Gravity really behind the oceans lying flat on The Earth? Or, can Gravity be said to support The Heliocentric Model of a curving ocean? Is the topic all so simple as to merely invoke Gravity to make all the complexities of fluid dynamics vanish, like a magic wand? Is it just a matter of asserting that the collective molecular vectors of matter on The Earth result in the spherical symmetry of Earth, with the horizontal components cancelling each other out, resulting in an amalgamated downward force towards the center of The Earth called Gravity?

Let's look at other variables that night account for the observable shape, movement, and behavior of the ocean's waters:

1) Surface Tension
2) Meniscus of Liquids
3) Siphons

4) Capillary Action
5) Cohesive and Adhesive Forces
6) Hydrostatic Equilibrium and Fluid Movement

Surface Tension

"The property of the surface of a liquid that allows it to resist an external force, due to the cohesive nature of its molecules."

Surface Tension in water owes to the fact that water molecules attract one another, as each molecule forms a bond with the ones in its vicinity. ... Due to the surface tension, small objects will "float" on the surface of a fluid, as long as the object cannot break through and separate the top layer of water molecules.

It seems to defy the laws of physics, but a paper clip made of steel can indeed float on the water surface. The high surface tension helps the paper clip - with much higher density - float on the water.

The cohesive forces between liquid molecules are responsible for the phenomenon known as surface tension. The molecules at the surface of a glass of water do not have other water molecules on all sides of them and consequently they cohere more strongly to those directly associated with them (in this case, next to and below them, but not above). It is not really true that a "skin" forms on the water surface; the stronger cohesion between the water molecules as opposed to the attraction of the water molecules to the air makes it more difficult to move an object through the surface than to move it when it is completely submersed.

Cohesion and Surface Tension

The cohesive forces between molecules in a liquid are shared with all neighboring molecules. Those on the surface have no neighboring molecules above and, thus, exhibit stronger attractive forces upon their nearest

neighbors on and below the surface. Surface tension could be defined as the property of the surface of a liquid that allows it to resist an external force, due to the cohesive nature of the water molecules.

Surface Tension at the Molecular Level

Drawing showing water molecules on a water surface form a strong bond, causing surface tension.

Surface tension in water owes to the fact that water molecules attract one another, as each molecule forms a bond with the ones in its vicinity. At the surface, though, the outmost layer of molecules, has fewer molecules to cling to, therefore compensates by establishing stronger bonds with its neighbors, this leading to the formation of the surface tension.

Water molecules want to cling to each other. At the surface, however, there are fewer water molecules to cling to since there is air above (thus, no water molecules). This results in a stronger bond between those molecules that actually do come in contact with one another, and a layer of strongly bonded water (see diagram). This surface layer (held together by surface tension) creates a considerable barrier between the atmosphere and the water. In fact, other than mercury, water has the greatest surface tension of any liquid.

Breaking the Membrane of Surface Tension

Within a body of a liquid, a molecule will not experience a net force because the forces by the neighboring molecules all cancel out. However for a molecule on the surface of the liquid, there will be a net inward force since there will be no attractive force acting from above. This inward net force causes the molecules on the surface to contract and to resist being stretched or broken. Thus the surface is under tension, which is probably where the name "surface tension" came from.

Due to the surface tension, small objects will "float" on the surface of a fluid, as long as the object cannot break through and separate the top layer of water molecules. When an object is on the surface of the fluid, the surface under tension will behave like an elastic membrane.

However, once the membrane of surface tension is broken, the bond between water molecules if no longer a singular cohesive entity. Because of wind and various geological factors, the oceans rarely offer any conditions that would promote a surface under tension that would result in an elastic membrane, the type we see in a small glass of water or in a raindrop.

Surface Tension and Surface Energy Over Large Areas

Surface free energy or interfacial free energy or surface energy quantifies the disruption of intermolecular bonds that occurs when a surface is created. In the physics of solids, surfaces must be intrinsically less energetically favorable than the bulk of a material (the molecules on the surface have more energy compared with the molecules in the bulk of the material), otherwise there would be a driving force for surfaces to be created, removing the bulk of the material. The surface energy may therefore be defined as the excess energy at the surface of a material compared to the bulk, or it is the work required to build an area of a particular surface. Another way to view the surface energy is to relate it to the work required to cut a bulk sample, creating two surfaces. There is "excess energy" as a result of the now-incomplete, unrealized bonding at the two surfaces.

Meniscus of Liquids in Large Containers

The meniscus is the curve in the upper surface of a liquid close to the surface of the container or another object, caused by surface tension. It can be either concave or convex, depending on the liquid and the surface.

A concave meniscus occurs when the particles of the liquid are more strongly attracted to the container (adhesion) than to each other (cohesion),

causing the liquid to climb the walls of the container. This occurs between water and glass. Water-based fluids like sap, honey, and milk also have a concave meniscus in glass or other wettable containers.

Conversely, a convex meniscus occurs when the particles in the liquid have a stronger attraction to each other than to the material of the container. Convex menisci occur, for example, between mercury and glass in barometers and thermometers.

However, over large areas, the effects of Meniscus dimmish, and there is no larger container than Earth. At best, one might say that at the Antarctic Shelf, sea water night either rise or dip slightly as it pressed against the ice wall in obeyance to the idea of Meniscus, but over the bast expanse of thousands of miles of sea water, this idea has no bearing, whatsoever.

Do Siphons Confirm Gravity?

Siphon

A siphon "pipe, tube", is any of a wide variety of devices that involve the flow of liquids through tubes. In a narrower sense, the word refers particularly to a tube in an inverted "U" shape, which causes a liquid to flow upward, above the surface of a reservoir, with no pump, but powered by the fall of the liquid as it flows down the tube under the pull of gravity, then discharging at a level lower than the surface of the reservoir from which it came.

There are two leading theories about how siphons cause liquid to flow uphill, against gravity, without being pumped, and powered only by gravity. The traditional theory for centuries was that gravity pulling the liquid down on the exit side of the siphon resulted in reduced pressure at the top of the siphon. Then atmospheric pressure was able to push the liquid from the upper reservoir, up into the reduced pressure at the top of the siphon, like in a barometer or drinking straw, and then over. However, it has been

demonstrated that siphons can operate in a vacuum and to heights exceeding the barometric height of the liquid.

Consequently, the cohesion tension theory of siphon operation has been advocated, where the liquid is pulled over the siphon in a way similar to the chain fountain. It need not be one theory or the other that is correct, but rather both theories may be correct in different circumstances of ambient pressure. The atmospheric pressure with gravity theory obviously cannot explain siphons in vacuum, where there is no significant atmospheric pressure. But the cohesion tension with gravity theory cannot explain CO2 gas siphons, siphons working despite bubbles, and the flying droplet siphon, where gases do not exert significant pulling forces, and liquids not in contact cannot exert a cohesive tension force.

Capillary Action in Siphons Not Gravity

Capillary action of water (polar) compared to mercury (non-polar), in each case with respect to a polar surface such as glass (≡Si–OH)

Capillary action (sometimes capillarity, capillary motion, capillary effect, or wicking) is the process of a liquid flowing in a narrow space without the assistance of, or even in opposition to, any external forces like alleged gravity. The effect can be seen in the drawing up of liquids between the hairs of a paint-brush, in a thin tube, in porous materials such as paper and plaster, in some non-porous materials such as sand and liquefied carbon fiber, or in a biological cell. It occurs because of intermolecular forces between the liquid and surrounding solid surfaces.

If the diameter of the siphon tube is sufficiently small, then the combination of surface tension (which is caused by cohesion within the liquid) and adhesive forces between the liquid and container wall act to propel the liquid.

Cohesive and Adhesive Forces

Cohesive and adhesive forces are associated with bulk (or macroscopic) properties, and hence the terms are not applicable to the discussion of atomic and molecular properties. When a liquid comes into contact with a surface (such as the walls of a graduated cylinder or a tabletop), both cohesive and adhesive forces will act on it. These forces govern the shape which the liquid takes on. Due to the effects of adhesive forces, liquid on a surface can spread out to form a thin, relatively uniform film over the surface, a process known as wetting. Alternatively, in the presence of strong cohesive forces, the liquid can divide into a number of small, roughly spherical beads that stand on the surface, maintaining minimal contact with the surface.

The term "cohesive forces" is a generic term for the collective intermolecular forces (e.g., hydrogen bonding and van der Waals forces) responsible for the bulk property of liquids resisting separation. Specifically, these attractive forces exist between molecules of the same substance. For instance, rain falls in droplets, rather than a fine mist, because water has strong cohesion, which pulls its molecules tightly together, forming droplets. This force tends to unite molecules of a liquid, gathering them into relatively large clusters due to the molecules' dislike for its surroundings.

Similarly, the term "adhesive forces" refers to the attractive forces between unlike substance, such as mechanical forces (sticking together) and electrostatic forces (attraction due to opposing charges). In the case of a liquid wetting agent, adhesion causes the liquid to cling to the surface on which it rests. When water is poured on clean glass, it tends to spread, forming a thin, uniform film over the glasses surface. This is because the adhesive forces between water and glass are strong enough to pull the water molecules out of their spherical formation and hold them against the surface of the glass, thus avoiding the repulsion between like molecules.

Macroscopic Effects of Cohesive and Adhesive Forces

When a liquid is placed on a smooth surface, the relative strengths of the cohesive and adhesive forces acting on that liquid determine the shape it will take (and whether or not it will wet the surface). If the adhesive forces between a liquid and a surface are stronger, they will pull the liquid down, causing it to wet the surface. However, if the cohesive forces among the liquid itself are stronger, they will resist such adhesion and cause the liquid to retain a spherical shape and bead the surface.

Thus Gravity is Not Necessary For Liquid Movement in a Siphon

Heliocentrists like to say that water obeys Gravity when siphoned in a tube, which they say is a confirmation of Gravity. However, liquid moves in a siphon because of the intermolecular forces between the liquid and surrounding solid surfaces. The movement is a result of pressure and disequilibrium in Hydrostatic tension, not Gravity. There is no downward force in a siphon, only internal molecular pressure moving the liquid in one direction or the other via the cohesion tension of the water molecules.

Hydrostatic Equilibrium and Fluid Movement

Fluid statics or Hydrostatics is the branch of fluid mechanics that studies the condition of the equilibrium of a floating body and submerged body "fluids at hydrostatic equilibrium and the pressure in a fluid, or exerted by a fluid, on an immersed body". It encompasses the study of the conditions under which fluids are at rest in stable equilibrium as opposed to fluid dynamics, the study of fluids in motion. Hydrostatics is a subcategory of fluid statics, which is the study of all fluids, both compressible or incompressible, at rest. Hydrostatics is fundamental to hydraulics, the engineering of equipment for storing, transporting and using fluids. It is also relevant to geophysics and astrophysics to Meteorology, to medicine (in the context of blood pressure), and many other fields.

Fluid Dynamics: Buoyancy and Boyle's Law and The Downward Force of Magneto-Dielectricity

If a mass is lighter (less dense) than its surrounding medium, it will rise. It is this Volumetric Mass Unit Per Volume Index which determines an object's direction, up or down, and not Imaginary Gravity**.**

Gravity worshippers always bring up:

"What causes the direction, up or down, in this buoyancy-density Flat Earth paradigm?"

Well, aside from the **Electromagnetic Dielectric Differential** of the "Aetheric wind", Fluid Dynamics and Magnetism answers the question.

Buoyancy

Buoyancy or upthrust, is an upward force exerted by a fluid that opposes the weight of a partially or fully immersed object. In a column of fluid, pressure increases with depth as a result of the weight of the overlying fluid. Thus the pressure at the bottom of a column of fluid is greater than at the top of the column. Similarly, the pressure at the bottom of an object submerged in a fluid is greater than at the top of the object. The pressure difference results in a net upward force on the object. The magnitude of the force is proportional to the pressure difference, and (as explained by ***Archimedes' Principle**) is equivalent to the weight of the fluid that would otherwise occupy the submerged volume of the object, i.e. the displaced fluid.

For this reason, an object whose average density is greater than that of the fluid in which it is submerged tends to sink. If the object is less dense than the liquid, the force can keep the object afloat.

Buoyancy also applies to fluid mixtures, and is the most common driving force of convection currents. In these cases, the mathematical modelling is altered to apply to continua, but the principles remain the same. Examples of buoyancy driven flows include the spontaneous separation of air and water or oil and water.

***Archimedes' Principle**

Archimedes' principle states that the upward buoyant force that is exerted on a body immersed in a fluid, whether fully or partially, is equal to the weight of the fluid that the body displaces. Archimedes' principle is a law of physics fundamental to fluid mechanics. It was formulated by Archimedes of Syracuse.

Boyle's Law and Fluid Dynamics

Boyle's law, also referred to as the Boyle–Mariotte law, or Mariotte's law (especially in France), is an experimental gas law that describes how the pressure of a gas tends to decrease as the volume of the container increases. A modern statement of Boyle's law is:

The absolute pressure exerted by a given mass of an ideal gas is inversely proportional to the volume it occupies if the temperature and amount of gas remain unchanged within a closed system.

Definition

The law itself can be stated as follows:

- For a fixed mass of an ideal gas kept at a fixed temperature, pressure and volume are inversely proportional.

- Or Boyle's law is a gas law, stating that the pressure and volume of a gas have an inverse relationship. If volume increases, then pressure decreases and vice versa, when the temperature is held constant.
- Therefore, when the volume is halved, the pressure is doubled; and if the volume is doubled, the pressure is halved.

Equation

The mathematical equation for Boyle's law is:

$$PV=k$$

…where **P** denotes the pressure of the system, **V** denotes the volume of the gas, **k** is a constant value representative of the temperature and volume of the system.

Relation With Kinetic Theory And Ideal Gases

Boyle's law states that at constant temperature the volume of a given mass of a dry gas is inversely proportional to its pressure.

Most gases behave like ideal gases at moderate pressures and temperatures. The technology of the 17th century could not produce very high pressures or very low temperatures. Hence, the law was not likely to have deviations at the time of publication. As improvements in technology permitted higher pressures and lower temperatures, deviations from the ideal gas behavior became noticeable, and the relationship between pressure and volume can only be accurately described employing real gas theory. The deviation is expressed as the compressibility factor.

Boyle (and Mariotte) derived the law solely by experiment. The law can also be derived theoretically based on the presumed existence of atoms and molecules and assumptions about motion and perfectly elastic collisions (see kinetic theory of gases). These assumptions were met with enormous resistance in the positivist scientific community at the time, however, as they

were seen as purely theoretical constructs for which there was not the slightest observational evidence.

Daniel Bernoulli (in 1737–1738) derived Boyle's law by applying Newton's laws of motion at the molecular level. It remained ignored until around 1845, when John Waterston published a paper building the main precepts of kinetic theory; this was rejected by the Royal Society of England. Later works of James Prescott Joule, Rudolf Clausius and in particular Ludwig Boltzmann firmly established the kinetic theory of gases and brought attention to both the theories of Bernoulli and Waterston.

The debate between proponents of energetics and atomism led Boltzmann to write a book in 1898, which endured criticism until his suicide in 1906. Albert Einstein in 1905 showed how kinetic theory applies to the Brownian motion of a fluid-suspended particle, which was confirmed in 1908 by Jean Perrin.

Density Calculator Equation

Pressure = Mass/Volume

Where:

p = density

m = mass

V = volume

The Density Calculator uses the formula p=m/V, or density (p) is equal to mass (m) divided by volume (V). The calculator can use any two of the values to calculate the third. Density is defined as mass per unit volume. Along with values, enter the known units of measure for each and this calculator will convert among units.

Variation of Pressure With Depth in a Fluid of Constant Density

Pressure is defined for all states of matter, but it is particularly important when discussing fluids. An important characteristic of fluids is that there is no significant resistance to the component of a force applied parallel to the surface of a fluid. The molecules of the fluid simply flow to accommodate the horizontal force. A force applied perpendicular to the surface compresses or expands the fluid. If you try to compress a fluid, you find that a reaction force develops at each point inside the fluid in the outward direction, balancing the force applied on the molecules at the boundary.

The pressure at any point in a static fluid depends only on the depth at that point. As discussed, pressure in a fluid near Earth varies with depth due to the weight of fluid above a particular level. In the above examples, we assumed density to be constant and the average density of the fluid to be a good representation of the density. This is a reasonable approximation for liquids like water, where large forces are required to compress the liquid or change the volume. In a swimming pool, for example, the density is approximately constant, and the water at the bottom is compressed very little by the weight of the water on top. Traveling up in the atmosphere is quite a different situation, however. The density of the air begins to change significantly just a short distance above Earth's surface.

To derive a formula for the variation of pressure with depth in a tank containing a fluid of density ρ on the surface of Earth, we must start with the assumption that the density of the fluid is not constant. Fluid located at deeper levels is subjected to more force than fluid nearer to the surface due to the weight of the fluid above it. Therefore, the pressure calculated at a given depth is different than the pressure calculated using a constant density.

The Relationship Between Mass, Density and Volume: The Heliocentric View

Density describes the ratio of mass to volume of an object or substance. Mass measures the resistance of a material to accelerate when a force acts upon it. According to Newton's second law of motion (F = ma), the net force acting upon an object equals the product of its mass times acceleration.

This formal definition of mass lets you put it in other contexts such as calculating energy, momentum, centripetal force and gravitational force. Since alleged Gravity is supposed nearly the same over the surface of the Earth, weight becomes a good indicator of mass. Increasing and decreasing the amount of material measured increases and decreases the mass of the substance.

There is a clear relationship between mass, density and volume. Unlike mass and volume, increasing the amount of material measured does not increase or decrease density. In other words, increasing the amount of freshwater from 10 grams to 100 grams will also change the volume from 10 milliliters to 100 milliliters but the density remains 1 gram per milliliter (100 g ÷ 100 mL = 1 g/mL).

This makes density a useful property in identifying many substances. However, since volume deviates with changes in temperature and pressure, density can also change with temperature and pressure.

Measuring Volume

For a given mass and volume, how much physical space a material takes up, of an object or substance, the density remains constant at a given temperature and pressure.

The equation for this relationship is:

Pressure=mass/Volume

…in which ϱ (rho) is density, m is mass and V is volume, making the density unit kg/m3. The reciprocal of density (1/ϱ) is known as the specific volume, measured in m3 /kg.

Volume describes how much space a substance occupies and is given in liters (SI) or gallons (English). The volume of a substance is determined by how much material is present and how closely the particles of the material are packed together.

As a result, temperature and pressure can greatly affect the volume of a substance, especially gases. As with mass, increasing and decreasing the amount of material also increases and decreases the volume of the substance.

For gases, the volume is always equal to the container that the gas is inside. This means that, for gases, you can relate the volume to temperature, pressure and density using the ideal gas law:

PV=nRTPV=nRT

…in which P is pressure in atm (atmospheric units), V is volume in m3 (meters cubed), n is the number of moles of the gas, R is the universal gas constant (R = 8.314 J/(mol x K)) and T is temperature of the gas in Kelvin.

The three gas laws can be related through the ideal gas law.

Three more laws describe the relationships among volume, pressure and temperature as they change when all other quantities are held constant. The equations are known as Boyle's Law, Gay-Lussac's Law and Charles's Law, respectively.

In each law, the left-hand variables describe volume, pressure and temperature at an initial point in time while the right-hand variables describe them at another later time point. Temperature is constant for Boyle's Law,

volume is constant for Gay-Lussac's Law and pressure is constant for Charles's Law.

These three laws follow the same principles of the ideal gas law, but describe the changes in contexts of either temperature, pressure, or volume held constant.

The Meaning of Mass

Though people generally use mass to refer to how much of a substance is present or how heavy a substance is, the various ways people refer to masses of different scientific phenomena means that mass needs a more unified definition that encompasses all of its uses.

Scientists typically talk about subatomic particles, such as electrons, bosons or photons, as having a very small amount of mass. But the masses of these particles are actually just energy. While the mass of protons and neutrons are stored in gluons (the material that keeps protons and neutrons together), the mass of an electron is much more negligible given that electrons are about 2,000 times lighter than protons and neutrons.

Gluons account for the strong nuclear force, one of the four fundamental forces of the universe alongside electromagnetic force, gravitational force and the weak nuclear force, in keeping neutrons and protons bound together.

--https://sciencing.com/density-mass-volume-related-6399069.html

The Downward Force and Magneto-Dielectricity

Magnetism

Magnetism together with ***Dielectricity** is the progenitor of Electricity. Magnetism is much more powerful than electricity. Possibly endlessly more powerful. Dielectricity stills electricity, it is the stillness that centers and balances the two-sex halved red and blue forces ("one force, two sexes"--Walter Russell) of electricity.

***Dielectric from Wikipedia, the free encyclopedia:**

"A dielectric (or dielectric material) is an electrical insulator that can be polarized by an applied electric field. When a dielectric is placed in an electric field, electric charges do not flow through the material as they do in an electrical conductor but only slightly shift from their average equilibrium positions causing dielectric polarization. Because of dielectric polarization, positive charges are displaced in the direction of the field and negative charges shift in the opposite direction. This creates an internal electric field that reduces the overall field within the dielectric itself. If a dielectric is composed of weakly bonded molecules, those molecules not only become polarized, but also reorient so that their symmetry axes align to the field."

--https://en.wikipedia.org/wiki/Dielectric

Maxwell's Equations

Maxwell's equations are a set of coupled partial differential equations that, together with the Lorentz force law, form the foundation of classical electromagnetism, classical optics, and electric circuits. The equations provide

a mathematical model for electric, optical, and radio technologies, such as power generation, electric motors, wireless communication, lenses, radar etc. They describe how electric and magnetic fields are generated by charges, currents, and changes of the fields.

The equations are named after the physicist and mathematician James Clerk Maxwell, who, in 1861 and 1862, published an early form of the equations that included the Lorentz force law. Maxwell first used the equations to propose that light is an electromagnetic phenomenon. The modern form of the equations in their most common formulation is credited to Oliver Heaviside.

An important consequence of Maxwell's equations is that they demonstrate how fluctuating electric and magnetic fields propagate at a constant speed (c) in a vacuum. Known as electromagnetic radiation, these waves may occur at various wavelengths to produce a spectrum of radiation from radio waves to gamma rays.

Magneto-Dielectricity

Magneto-dielectricity acts as the balancing focal point of all waves, the center point of all waves.

1) One: Magneto-Dielectricity is the standing/ longitudinal wave: ***rarefaction-compression**, centripetal convergence, and centrifugal divergence (see: Nikola Tesla)
2 The other: Electromagnetic is the ***Hertzian/ transverse radio waves** (see: Heinrich Hertz)

- One is a pulse, the other is a wave/polarity
- One is magneto-dielectric/the other is electromagnetic/physical

***rarefaction-compression is a region in a longitudinal wave where the particles are closest together. A rarefaction is a region in a longitudinal wave where the particles are furthest apart. ... The region where the medium is compressed is known as a compression and the region where the medium is spread out is known as a rarefaction.**

--Wikipedia

***Hertzian Radio Waves are a type of electromagnetic radiation with wavelengths in the electromagnetic spectrum longer than infrared radiation. Radio waves have frequencies as high as 300 gigahertz (GHz) to as low as 30 hertz (Hz). At 300 GHz, the corresponding wavelength is 1 mm (shorter than a grain of rice); at 30 Hz the corresponding wavelength is 10,000 km (longer than the radius of the Earth). Like all electromagnetic waves, radio waves in a vacuum travel at the speed of light, and in the Earth's atmosphere at a close, but slightly lower speed. Radio waves are generated by charged particles undergoing acceleration, such as time-varying electric currents. Naturally occurring radio waves are emitted by lightning and astronomical objects, and are part of the blackbody radiation emitted by all warm objects.**

--Wikipedia

There Are Three Field Modalities: Gravity is a Myth

1. Dielectricity
2. Magnetism
3. Electricity

There is Only One Field: The Aether

Gravity is a false God that wishes to belong in the holy trinity but cannot due to it being a false doctrine invented by materialist pseudoscientists, inspired by Masonic occultism. Gravity is the 'shadow' of

the three, it is the big "G" inside the compass and square of the Freemasons. It's their false God. G.O.D. Generation Operation Dissolution.

Dielectricity, Magnetism, and Electricity is ALL there is. Nothing beyond this exists. Gravity is not an autonomous field modality.

Recall that there are three field modalities:

1. Dielectricity

2. Magnetism

3. Electricity

Gravity perverts human perception claiming that there's a constant force pulling one downwards, forever OPPRESSING.

You exist where you're meant to exist.

No downward force oppression is necessary.

What I like about Electromagnetics, instead of Gravitational Theory, is that it is real, measurable, usable, practical:

1) Your car speakers use electromagnetics.
2) The earth is electromagnetic, as we see with The North Pole, most notably.
3) The Earth is ring magnet with toroidal currents.
4) All of the preceding is confirmable.
5) People love Gravity because they think electromagnetism only applies to metals. They do not realize that electromagnetic dielectric differentials enable non-metallic objects to experience downward vectors.

- **What is this fixation on Gravity people have?**

- **You put a nerf ball in the water, it floats, which obeys a molecular density to atmospheric density ratio.**
- **The idea that Gravity is pulling it down is nonsense.**
- **You might as well say that water is holding** the **nerf ball up.**
- **Density and Buoyancy…two sides of the same coin.**
- **In the most simple terms, the dynamism between Density and** Buoyancy establishes the upwards and downwards vectors.

But there are other forces in the equation, of course:

Electromagnetics, and the "Aetheric Wind" of electromagnetic dielectric differentials...all these forces with density and buoyancy create directional vectors, up or down.

However, Gravity is an unseen, unconfirmed, unnecessary, unmeasurable assumption.

The Tides and Electromagnetism

Hence, The Tides are created by magnetic currents. Did you realize that salt in the ocean makes the ocean more magnetic? The Creator infused the oceans with salt to assist in this. The Moon does zero to the tides. It is all Magnetism, salt, and water…pure science.

Salt in ocean waters exist as positive and negative ions, like sodium and chloride. As water flows around the Earth, these ions are deflected by the Earth's magnetic field – positive ions are pushed one-way, negative ions the other. These, in turn, induce magnetic fields.

Even Atheists rant about the Earth's "iron core", which creates a magnetic field on The Earth, and The Earth, as Nikola Tesla said, is governed by Electromagnetics. It is real science, empirical, and not imaginary Gravity Scientism mythology.

People get so upset when you deny the existence of their God...Gravity.

Always remember, Gravity is strong enough to hold the massive Moon in an alleged Geosynchronous orbit, yet too weak to prevent a helium balloon from rising. The sheer bullshit factor of this idea is off the scales.

Nevertheless, Density and Buoyancy explain the balloons ascending vector, perfectly.

We Live in a Theory Tale

Heliocentrism, Gravity, Evolutionary Theory Big Bang Cosmology…all unsubstantiated assumptions. Theoretical Science is riddled with big fish stories and little empirical evidence to support its claims.

Gravity was only really developed by Freemasons to push their Heliocentric Globe Theory...you know, orbits and that kinda crap...

Due to the partial covalency of water's hydrogen bonding, electrons are not held by individual molecules but are easily distributed amongst water clusters giving rise to coherent regions capable of interacting with local electric and magnetic fields and electromagnetic radiation. People love Gravity because they think electromagnetism only applies to metals. They think electromagnetic dielectric differential could not pull non-metallic objects down.

The biggest problem NASA will have with their new "Oblate Spheroid, Pear Shaped Earth" announcement is the thousands of images they have given the public for decades showing the Earth to be a perfect Sphere!! Oh, so the Earth just suddenly changed its shape last year???

Gravity was the last bastion attempt to save a dying Heliocentric Model. I would Science has become its own religion. Believing nothing blew up billions of years ago takes faith. Science has gone beyond observation and lives in perpetual theory. "Science's" church is state funded without the consent of the tax payers.

Exactly. That's is how ridiculous this Gnostic Luciferian Mythology called Gravity actually is. Gravity is a jealous God. Gravity is discriminating but inconsistently. Gravity is cartoon land. Gravity is Walt Disney Epcot Center Space Science.

"G" stands for God...Gravity. The God of Occult Luciferian Freemasonry. Most people never study this, and just believe whatever SCIENTISM preaches from the CERN pulpit or the alters of NASA. NASA is a Church.

It's nonsense too, when you think about who siphons hundreds of millions of dollars from the public purse to NOT find what it is looking for? The whole thing is a giant scam. They will toss a discovery out periodically to legitimize the scam and keep the cash coming in.

When an object is immersed in a liquid, the liquid exerts an upward force, which is known as the buoyant force, that is proportional to the weight of the displaced liquid. The sum force acting on the object, then, is equal to the difference between the weight of the object ('down' force) and the weight of displaced liquid ('up' force). Equilibrium, or neutral buoyancy, is achieved when these two weights (and thus forces) are equal.

When an object is immersed in a liquid, the liquid exerts an upward force, which is known as the buoyant force, that is proportional to the weight of the displaced liquid. Now simply apply this logic to any medium: Air, Vaporous clouds, Upper Atmosphere, Highlands...etc...

The basketball is much less dense than water because it is filled with air. An object (or a fluid) will float on a fluid if its density is less than that of the fluid; if its density is larger than the fluid's, it will sink.

But because of The Masonic Fraternity and their NASA nightmare, we live in a Scientism theory tale.

The Stars and Wandering Stars (Planets)

- The Stars and "Planets" (Wandering Stars) are not solid.
- They are the result of electromagnetically driven Sonoluminescence.
- NASA has lied to you with CGI Computer cartoons of Planets (Wandering Stars) and Stars for so long you do not trust your own eyes.
- Get your telescope out and look at them. They are not solid.
- The Phases of Venus have nothing to do with the Sun's position.
- Venus generates its own light like The Stars and all The Planets (Wandering Stars).
- They all shimmer and appear to have phases through the very understandable science of Sonoluminescence.

Big Electric Sun Theory

The Sun as a nuclear reactor is a very far-fetched theory with no experimental evidence. The spectral emissions of the Sun follow sulfur, not hydrogen or helium as any Spectrometer will clearly show you. If you superimpose sunlight emissions on top of sulfur lamp emissions you get a match. It's not perfect, but close enough.

Spectrometer

A spectrometer is a scientific instrument used to separate and measure spectral components of a physical phenomenon. Spectrometer is a broad term often used to describe instruments that measure a continuous variable

of a phenomenon where the spectral components are somehow mixed. In visible light a spectrometer can separate white light and measure individual narrow bands of color, called a spectrum.

A mass spectrometer measures the spectrum of the masses of the atoms or molecules present in a gas. The first spectrometers were used to split light into an array of separate colors. Spectrometers were developed in early studies of physics, astronomy, and chemistry. The capability of spectroscopy to determine chemical composition drove its advancement and continues to be one of its primary uses. Spectrometers are used in astronomy to analyze the chemical composition of stars and planets, and spectrometers gather data on the origin of the universe.

Examples of spectrometers are devices that separate particles, atoms, and molecules by their mass, momentum, or energy. These types of spectrometers are used in chemical analysis and particle physics.

The light emitted by the Sun is the same as a sulphur lamp. Here are a few examples of wavelengths from other elements. There aren't many wavelengths for hydrogen or helium are there? And helium is nearly all blue (UV) wavelength.

The sun is a giant ball of plasma in the current model, with a core 150 times denser than water and a temperature of 15.7 million degrees kelvin.

Makes perfect sense, right?

15.7 million degrees Kelvin?

Of course, what else could it be?

15.7 million degrees kelvin.

Reminds me of the zillions of light years distance of stars.

A core 150 times denser than water, and 15.7 million degrees kelvin… sounds so probable and realistic.

Come on.

It's pure rubbish.

Or, a more scientifically plausible conclusion, the sun is a sulfur lamp, a transduction mechanism, like most everything else in this electromagnetic universe, with a temperature of approximately 6000 degrees Celsius, and powered by an free electric "universe", exactly as modern science has discovered with its wireless Internet of Things, and as Nikolai Tesla said from day one.

The Sun is not an object of one wavelength, but rather of intensity. This is easy to account for, particularly when looking at meteorites, that the Sun is a sulfur lamp, and has the highly reflective shreibersite layer coating of iron/nickel/cobalt, which is the most likely reason for the extra intensity.

In fact, Chondrites—primitive nondifferentiated meteorites coming from the main asteroid belt between Mars and Jupiter—form the largest group of meteorites. The main structural chondritic components are chondrules, whose origin is controversial (e.g., Hewins 1996; Zanda 2004; Lauretta et al. 2006). Chondrites and chondrules have an elemental composition similar to that of the condensable matter of the Sun. (https://hal.archives-ouvertes.fr/hal-03289395/document)

Mass, as gravity, is an assumption which experiments have shown to be extremely wanting. It's a made-up theory which they've used to base their Heliocentric model on, which was then found extremely wanting in their space model, so they had to make more stuff up like relativity, dark matter

and more stuff. They have just made it up to try and support gravity as mass. Even a few mainstream scientists are now questioning this theory. It's time to stop the inventive patches on Newton and start again. To start again, the shape of the Earth is the first experiment and then work on from there.

Which seems more likely?

"As meteors come from the Sun, the Sun itself must be made of iron meteoritic components and in its ratios. Thereby, the Sun is mostly made of an iron (65%)/nickel/cobalt/trace precious metals alloy. There is also a separate graphite component which must be in contact with the very small titanium part as titanium is **only** present in meteorites as titanium carbide (stardust).

The graphite area is also in contact with the sulfur part as graphite often surrounds the iron-sulfide nodules in meteorites; the graphite doesn't react with the sulfur, however. The iron-nickel-phosphide (schreibersite) component is likely to be a part of the Sun as is, because phosphorus cannot exist on its own as a single element in extreme heat. (The same applies to sulfur, but we will see its role later). Schreibersite is found in plate form and so it is likely plated to the common iron-nickel-cobalt alloy already mentioned.

Also, since graphite and troilite are present in most (iron) meteorites (the former often surrounding the latter) and that they are in the form of nodules in the iron-nickel alloy, all meteors must start life as expulsions of graphite-encompassed sulfur (or occasionally just sulfur) which then hits the schreibersite (Fe-Ni)3P plated layer of the main iron-nickel-cobalt alloy which constitutes the bulk component of the Sun.

The sulfur has a low melting point and so quickly reacts with the iron from the alloy forming iron sulfide (troilite). This super-high temperature

(5500 °C) mass of graphite and sulfur melts the schreibersite layer and then melts into the main iron-nickel-cobalt alloy behind it. This molten mass is then ejected away from the Sun in a probably centric fashion (like the Phi curve?) until it hits the glass layer at 100 km up. At this point the size of the meteor and/or the angle with which it hits the glass determines how much glass the iron meteor picks up and how the glass mixes with the meteor, whether through very rare total blending (carbonaceous meteorites), common varied blending (ordinary chondrites), rare no blending (stoney-iron meteorites), or rare iron meteorites containing no glass at all, even in chondrule form.

Now we understand the process, what kind of object does the Sun sound like to you? The Sun as an artificial construct, a massive transducer of electromagnetic radiation that we experience os UV Light. Though the sun emits all of the different kinds of electromagnetic radiation, 99% of its rays are in the form of visible light, ultraviolet rays, and infrared rays (also known as heat). Man-made lamps can also emit UV radiation, and are often used for experimental purposes.

Does The Sun really sound like a nuclear furnace?

Nope.

Pure metallic iron alloys are extremely rare in nature. The only example of a naturally-occurring iron-nickel alloy is called telluric iron, found only in Greenland. Even then, the composition of this iron is vastly different to that of the meteoric one. In Neutron activation Analysis of Metals, a case study:

For example, the **nickel content** of the Cape York meteoritic iron is about 8%; and that of the telluric iron lies in the range of **1% to 3%** (with one specimen of 6.5%). The **carbon content** should also be useful in this respect,

as the Cape York meteorites contain less than 0.08% while the telluric Ovifak iron ranges as high as **10%**.

In the Cape York area of Greenland there is 58 tons of the meteoric iron and over 500 tons of iron meteorites found on Earth so far. The Sun is still in the sky which means it consists of an incredible amount of iron-nickel-cobalt alloy whose composition does not exist on Earth at all. In fact, chondrites consist of other minerals unique to themselves.

There are generally many inclusions of assorted minerals, including nickel-iron grains, iron sulfides, magnetite, and many other minerals, some unique to asteroids.

Schreibersite is very rare on Earth, where the only known occurrence of the mineral is on Disko Island in Greenland; but it is common in meteorites. The amount of precious metals, especially iridium, is much higher in meteorites than normally found naturally.

Conclusion:

The Sun consists of a humungous amount of iron alloy with a unique composition, where iron alloys themselves are nearly never found on Earth naturally. Other materials are also unique to the Sun or are otherwise very rare compared to the same elements on Earth. All meteorites consist of the same very few components in different ratios in the same pattern and format and consistency. Also, iron meteorites are easily confused with rusted pieces of **man-made** iron and steel. Not forgetting, there is a humungous amount of almost-pure glass in the sky 100 km high, the composition of which is never found on Earth naturally.

What are the chances that the Sun is an entity of natural formation? Next to zero I would say. The Sun must be a technology. What else can it be? If the Sun is a technology, let's look at the properties of the materials of the different parts of the Sun and how they are used in today's man-made technology to see if we can determine what kind of apparatus the Sun is.

The Role of Each Meteoric Element

1. The main mass of the Sun is the **iron-nickel-cobalt alloy**. The ratio of nickel in the original meteoric alloy is somewhere between 30-35%. This alloy has what is called the Invar effect:

In 1897 Guillaume1 discovered that face-centered cubic alloys of iron and nickel with a nickel concentration of around **35 atomic percent** exhibit **anomalously low (almost zero) thermal expansion over a wide temperature range**. This effect, known as the Invar effect, has since been found in various ordered and random alloys and even in amorphous materials.
Low to zero thermal expansion over a wide temperature range? Funny that. How do we use this alloy in our everyday technology?

Iron, nickel, and cobalt-based alloys used primarily for **high-temperature applications** are known as superalloys. Iron-based superalloys are characterized by high temperature as well as room-temperature strength and resistance to creep, oxidation, corrosion, and wear.

High-temperature applications? No surprises there. Are there any other uses that could match the Sun's disposition?

The thermal expansion property of this alloy is almost identical to that of **hard glass and ceramics**. It also generates a very low level of foams when used for hermetic sealing of glass. In addition to these characteristics,

the alloy is low in outgassing while it provides **outstanding machinability**; therefore, it is widely used for **vacuum vessels**, **CRT electron gun electrodes**, and various other precision products.

Vacuum vessels? Electrodes for electron guns? Outstanding machinability! It is as if this alloy has been perfectly made for the Sun, which operates in the vacuum of space. If you think these facts are overbearing co-incidences, read on. We haven't even started yet.

2. The high concentrations of **precious metals** (compared to terrestrial standards) in the iron-nickel-cobalt alloy, such as gold, platinum, and iridium probably also have a purpose. Today's technology uses these metals in a variety of ways.

(**Gold**) it is almost invariably alloyed with other less expensive metals, such as copper, zinc, silver and nickel. Important commercial uses include wiring in **electronics**, semi-conductors in tiny computer chips (when combined with silicon and/or other metals) and printed circuits… **Platinum** is also used in **electronics**, while its incorruptibility makes it ideal for **crucibles**. As an alloy with platinum (containing about 1% rhodium), it is used in **thermocouples**, **electrical equipment** and man-made fiber production… The most corrosion-resistant of all elements, **iridium** is also used to make **crucibles and high temperature lab equipment**. Iridium is usually alloyed with platinum (with iridium being less than 20%). The alloy is then used in **robust electrical contacts**, precision resistance winding. **Iridium is 6 times harder, 8 times stronger, and has a melting point 1200 degrees higher than platinum making it an ideal material for the electrode of a spark plug**.

And so, we have electronics, electrodes, crucibles and high temperature lab equipment. It is the same theme again and again… electrics and high temperatures.

3. Carbon (graphite) is also part of the Sun, from which all meteors likely originate. What properties does this material possess?
Graphitic substances, due to their **exceptional thermal resistance** and light weight, can suitably tackle this situation. Some application of graphite in aerospace industry includes engine cases, blast tubes, rocket nozzle, nose cone, different edge components, thermal insulator etc.

Yet another material of the Sun that has exceptional thermal resistance. How do we use this in our every-day technology?

This particular structure of graphite in a single layer makes it one of the most stable and unreactive materials that can **retain its strength and physical properties at a temperature as much as 2200 degree Celsius**. The atomic structure of graphite reveals that, it poses delocalized electrons which are mobile and is responsible for carrying heat and **electricity**. A very pure form of graphite is pyrolytic graphite which is desired for its anisotropic properties. For its **superior conductivity and stability** pyrolytic graphite has many advanced uses, for example, **ultra-high vacuum crucible**, missile components, thermal insulator, rocket nozzles, and aircraft's brake.

Yet another material used in a vacuum, just like the Sun. It isn't just used in vacuum crucibles, however; its main technological purpose is as electrodes for industrial electric arc furnaces used to melt scrap iron and steel.
Graphite electrodes carry the electricity that melts scrap iron and steel (and sometimes direct-reduced iron: DRI) in electric arc furnaces, the vast majority of steel furnaces. They are made from petroleum coke after it is mixed with coal tar pitch, extruded and shaped, then baked to carbonize the binder (pitch), and then **graphitized by heating it to temperatures approaching 3000 °C**, that converts carbon to graphite.

Interestingly, the carbon turns to graphite at close to 3000 °C which would perhaps explain why the carbon of the 5,500 °C Sun is in this form.

So what information do we have so far? The Earth is surrounded by a 99%+ pure glass layer which is then followed by a vacuum and then a radiating artificial light. What kind of technology does this sound like to you? You have several of them in your home right now.

If the Sun is a light-bulb, then the originating component of meteors: carbon, is likely to have an electrode role. Electricity is never smooth and even in its transmission through a wire or an electrode. There are surges every now and then.

They are produced by the random movement of charge carriers, caused by **thermal agitation**, and by other physical processes in matter that stem from **the discrete nature of electricity**, as well as by the random variations and instability inherent in a circuit.

It stands to reason that the electric current powering the Sun light-bulb would also have varied surges throughout its "shelf-life". This would explain solar flares. In fact, these surges may be what causes bits of the graphite electrode to break off and melt through the iron alloy and then on to Earth as meteors. This is supported by the fact that coronal mass discharges (CMEs), of which iron has been speculated as an element, have a very strong correlation with solar flares and that both CMEs and solar flares typically erupt from what are known as the active regions on the sun where magnetic fields are much stronger on average. Could these stronger magnetic fields be where the carbon electrodes are placed? Very likely.

4. This leaves **sulfur** as the only possible component for the filament part of the light-bulb, especially as graphite is often found in contact with or

surrounding iron sulfide in meteorites. To be honest, I had never heard of sulfur as a filament and thought I was barking up the wrong tree, until I found that sulfur lamps had already been invented and exist right now.

Sulfur lamps were first researched as a project in 1986 taking four years to fully develop. However, being too expensive to manufacture they were never commercially available until quite recently. A 1994 article mentions them below.

The brightest prospect of that kind is a revolutionary prototype bulb developed by Fusion Lighting of Rockville, Md., in conjunction with DOE: a tiny, closed quartz sphere containing argon gas and a pinch of **elemental sulfur**. When zapped with ordinary kitchen-grade microwaves, the bulb gives off intensely bright and relatively cool rays that are **remarkably similar to sunlight**.

The sulfur bulb gets so hot that it has to be rotated at **300 to 600 revolutions per minute to prevent the quartz from melting**, which it would do "in about 2 seconds" if uncooled, says Fusion Lighting Vice President Michael Ury. (Early prototypes also required two fans per bulb; later versions have eliminated that need.)

A sulfur lamp is remarkably similar to sunlight and needs to be rotated to avoid melting the glass. Is this why we have day and night, to avoid melting the glass in the sky? If so, each rotation of the sulfur lamp would be equivalent to one Sun rotation, which is 24 hours. That means that 300-600 rotations per minute is equivalent to 300-600 days or 1 to 2 years. Is 1+ years for us equal to one minute of the engineers' time? Two seconds before the glass melts is equivalent to 10 to 20 days Earth time. If the sun is at full power and stops for 20 days, then we could be in trouble.

Also, what kind of temperatures does a sulfur light-bulb produce to melt the quartz glass in 2 seconds? The answer: 6000 Kelvin or 5,500 °C. Mmm, where have we heard that temperature before? Oh yes… the Sun of course. The temperature of the corona of the Sun is also 5,500 °C.

Because of the sulfur lamp's remarkable similarities to Sunlight, hobbyist and indoor growers are building the lamps themselves. You tube authors often describe these lamps as "The Sun on Earth" and "spectrum". What does full spectrum mean?

Full-spectrum light is light that **covers the electromagnetic spectrum from infrared to near-ultraviolet**, or all wavelengths that are useful to plant or animal life; in particular, **sunlight is considered full spectrum**, even though the solar spectral distribution reaching Earth changes with time of day, latitude, and atmospheric conditions.

In fact, when comparing camcorder stills of the Sun and those of a sulfur lamp it is very difficult to spot the difference. If it weren't for the background in the shots below, it would be hard to discern which were which.

How similar is the light emitted from a sulfur lamp to that of the Sun?

The reason for the lack of blue light is unknown to me at this time but may be because the Sun uses carbon electrodes in a vacuum as opposed to an electrode-less sulfur lamp using microwaves to ignite the sulfur which is surrounded by argon gas. Apparently there is a patent for a lamp which uses electrodes (titanium oxide for example), so electrodes are possible.
The excess blue light is really only for sunlight above the atmosphere. A sulfur lamp's light wavelengths are tested in our atmosphere. Is the very small scale of the man-made sulfur lamp the reason for the excess blue light absorption in the air between itself and the detector? If a small sulfur lamp

were in the vacuum of space, would it also show an excess of blue light to 250 nm? I don't know.

The lack of yellow and red light is more easily explained and brings us on to the next material.

5. The Sun is very likely a parabolic disk which is made of an iron-nickel-cobalt alloy. This is further plated with a **schreibersite (iron-nickel-phosphide)** layer with a hardness of 6.5 to 7, which is somewhere between pyrite and quartz. There is a strong correlation between the hardness of the material and its melting point as hardness demonstrates strong molecular bonds, which is also the reason for a high melting point. This makes the melting point of schreibersite somewhere between 1200 and 1700 °C, but it could be a lot higher as Tungsten has a hardness of 7.5 and a melting point of 3422 °C. This might not seem high enough to resist the 5,500 °C temperature of the Sun, but schreibersite is highly metallic in its luster which means it is extremely shiny. This would mean that the Sun disk would look something like a solar cooker, with most (95%) of the hot infra-red rays being reflected back out, and schreibersite, according to Buchwald V.F. (1975) Handbook of Iron Meteorites, Vol. 1, " is yellow in reflected light". This plated layer is the likely reason for the increase in yellow and red light emitted from the Sun, and also perhaps why the Sun can be sometimes seen to be yellow/white in color.

Perhaps after many years of discharges, the schreibersite layer has revealed some of the iron-nickel alloy underneath which is adding to the extra blue light seen in the sunlight spectrum?

6. The last component of meteorites is the tiny amount of **titanium carbide** present. Since titanium is always in the form of a carbide, it must be attached to the carbon electrode of the Sun. The role of this element is

unknown to me, but due to its very low quantity, a guess would be that it is used as a place holder for the carbon electrodes; but that is purely speculative.

7. We have covered all the components of iron meteorites and therefore finished with the Sun itself. However, there is still the mystery of the incredibly large quantities of **magnesium** that is attached to the glass layer in the sky; as well as small amounts of calcium, sodium and aluminum. In meteorites, magnesium is always attached to silicon dioxide in some form as an enstatite, but what is it doing there? Let's look at how magnesium is used in industry to give us a clue.

Large transmitting and specialized (vacuum) tubes often use more exotic getters, including **aluminum, magnesium, calcium, sodium**, strontium, cesium and phosphorus.

When a vacuum tube or an electron gun is pumped to a near-vacuum state, not all the air can be physically expelled. To mop up any remaining gas, a highly-reactive substance, usually a magnesium ring, is added inside the vacuum tube or electron gun and heated up.

This is the reason why there is so much magnesium on the glass layer in the sky. The engineers pumped out (or let gravity take out) as much of the air as possible and added a magnesium getter probably close to or attached to the Sun as the magnesium needed to heat up and react with the remaining gas that was left. With such high temperatures the magnesium would have evaporated, fell, and then lined the glass.

Conclusion

None of the evidence presented so far is conclusive, but it does make the theory likely. You may be thinking, well, what about those pictures of the Sun that show dark spots, like this one below:

How can photos like this be taken of such a luminous object, that clearly has no dark spots when seen with the naked eye? A hydrogen-alpha filter is added to the camera lens so that only a very narrow frequency of light can be viewed. How narrow?

H-alpha has a wavelength of **656.281** nm. A hydrogen-alpha filter is an optical filter designed to transmit a narrow bandwidth of light generally **centered on the H-alpha wavelength.**

These layers are selected to produce interference effects that **filter out any wavelengths except at the requisite band**. Alternatively, an etalon may be used as the narrow band filter (in conjunction with a "blocking filter" or energy rejection filter) to pass only **a narrow (<0.1 nm) range of wavelengths of light centered around the H-alpha emission line**.

Under 0.1 nanometer of light centered around 656.281 nm! Of course, the Sun has dark spots; if by dark spots they mean areas of the Sun that don't emit wavelengths of light under 0.1 nm either side of 656.281. Take a picture of a sulfur lamp, or even an ordinary tungsten filament light-bulb with the same filter and you are bound to see something similar. The dark spots of the light-bulb mean that the light-bulb in your living room is really a spherical solid object generating millions of degrees in temperature because of the nuclear fusion of hydrogen and helium producing 5,500 °C at its corona… obviously!

It's such a non-nonsensical and deceptive proposition that the Sun has dark spots, but we are easily fooled without investigating it ourselves. Undoubtedly, it was a way for the Copernicans to try and uphold their illusion of solid spheres whirling around each other millions and trillions of kilometers away.

Interestingly, scientists thought the Sun was solid and even partly made out of iron in the early 1900s.

"In principle, it seemed that one might obtain the composition of the stars by comparing their spectral lines to those of known chemical elements observed in laboratory spectra. Astronomers had identified elements like calcium and **iron** as responsible for some of the most prominent lines, so they naturally assumed that such heavy elements were among the major constituents of the stars."

This was no doubt a little worrying for the heliocentric natural philosophers. Galileo's assumption that the entire Sun must be made out of gas because sunspots move around the Sun at different speeds can't be wrong after all.

"Galileo was the founding father of the gas model theory of the sun. He observed the sun through a relatively primitive telescope and noticed that sunspots did not rotate uniformly across the surface of the photosphere. He also observed that this visible "surface" rotated at different speeds near the equator than it did near the poles."

"From his study of sunspots and their uneven rotation pattern, Galileo surmised that he must be looking at some type of gas atmosphere. He was correct in that assessment, although today we know that the photosphere is a form of hot ionized plasma. Unfortunately, however, Galileo also "assumed" that no other solid layers existed, or could exist, beneath the visible layer of the photosphere.

If a light-bulb has an electric plasma around it, the whole light-bulb must be made out of plasma… so goes the logic. That is not to say that the original early 1900s' idea of taking the entire spectrum of the sulfur lamp Sun and

then breaking each wavelength down so that it would encompass practically all the elements of the Earth was not exactly a good one. Don't forget, this is sunlight that traveled through the glass layer

100km high and all the different gases of Earth's atmosphere underneath, so they might be forgiven in using this kind of methodology.

In fact, Henry Norris Russell at Princeton had concluded that if the Earth's crust were heated to the temperature of the Sun, its spectrum would look nearly the same.

Ok Henry, really. Never fear though. Galileo must be correct. What we need is some Einstein-esque mathematical makerupery to make sure a broad spectrum of elements magically turns into just one or two gases. The first person to do this will get a statue of themselves and a prize. Enter Cecilia Payne:

"Cecilia Payne, who studied the new science of quantum physics (uh-oh), knew that the pattern of features in the spectrum of any atom was determined by the configuration of its electrons (of course she did). She also knew that at high temperatures, one or more electrons are stripped from the atoms, which are then called ions. The Indian physicist M. N. Saha had recently shown how the temperature and pressure in the atmosphere of a star determine the extent to which various atoms are ionized.

Payne began a long project to measure the absorption lines in stellar spectra, and within two years produced a thesis for her doctoral degree, the first awarded for work at Harvard College Observatory. In it, she showed that the wide variation in stellar spectra is due mainly to the different ionization states of the atoms and hence different surface temperatures of the stars, not to different amounts of the elements. (Or it is due to the absorption of the

glass / layer and all the atmospheric gases underneath). She calculated the relative amounts of eighteen elements and showed that the compositions were nearly the same among the different kinds of stars. She discovered, surprisingly, that the Sun and the other stars are composed almost entirely of hydrogen and helium, the two lightest elements. All the heavier elements, like those making up the bulk of the Earth, account for less than two percent of the mass of the stars."

Problem solved. How on Earth did Indian physicist M. N. Saha know the pressure and temperature of stars? He didn't. It's just pure guesswork in their heliocentric model of assumptions.

Meghnad Saha's best-known work concerned the thermal ionization of elements, and it led him to formulate what is known as the Saha equation. This equation is one of the basic tools for interpretation of the spectra of stars in astrophysics. By studying the spectra of various stars, one can find their temperature and from that, using Saha's equation, determine the ionization state of the **various elements making up the star**.

Assuming starlight through the glass and Earth's atmosphere gives an accurate spectrum of the stars' composition and that the equation has a true basis in reality.

The Saha ionization equation, also known as the Saha–Langmuir equation, is an expression that relates the ionization state of an element to the temperature and pressure. The equation is a result of combining **ideas** of quantum mechanics and statistical mechanics and is used to explain the spectral classification of stars. The expression was developed by the Indian astrophysicist Meghnad Saha in 1920, and later (1923) by Irving Langmuir.

Mathematical makerupery again. Let's combine ideas and make something up – don't study the composition of real things (**only** things) from space: meteorites; instead let's conflate everything together using math.

"Saha had concentrated on the marginal appearances and disappearances of absorption lines in the stellar sequence (not in the upper atmosphere), assuming an order of magnitude for the pressure in a stellar atmosphere and calculating the temperature where increasing ionization, for example, inhibited further absorption of the line in question owing to the loss of the series electron. As Fowler and I were one day stamping round my rooms in Trinity and discussing this, it suddenly occurred to me that the maximum intensity of the Balmer lines of hydrogen, for example, was readily explained by the consideration that at the lower temperatures there were too few excited atoms to give appreciable absorption, whilst at the higher temperatures there are too few neutral atoms left to give any absorption.

That evening I did a hasty order of magnitude calculation of the effect and found that to agree with a temperature of 10000° [K] for the stars of type A0, where the Balmer lines have their maximum, a pressure of the order of 10−4 atmosphere was required. This was very exciting, because standard determinations of pressures in stellar atmospheres from line shifts and line widths had been supposed to indicate a pressure of the order of one atmosphere or more, and I had begun on other grounds to disbelieve this."

The priesthood is a waste of space. They are forever "surprised" when real data comes in to smack them in the face repeatedly. Instead of all the heliocentric assumptions, temperature suppositions, pressure guesses, made up equations, just compare the space spectroscopy of the Sun to a sulfur lamp and its composition to iron meteorites and voila, problem solved (just about). No doubt, the high-ups at NASA and certain elements within the US

military know the truth of our situation, at least they knew what the Sun really is sometime between 1979 (launch of the space shuttle) and 1986 (the start of the development of the sulfur lamp). The U.S. Air and Space Museum in Washington, D.C. has installed them and the Hill Air Force Base hanger (US) has many spherical ones littered under the roof. They know.

If the Sun is a light-bulb filament and there is glass in the sky, then natural philosophers (scientists) will be turning in their beds, as to them a very small technological "universe" is the equivalent of garlic to a vampire. It is rocket fuel to the God-botherers though. Nevertheless, everything may not be 100% artificial; at least the Earth may have already existed before it was molded and terraformed to the engineers' specifications (or maybe not).

We still don't know the purpose of this terraforming and who did it (and if we were told we would need some kind of a back story as we have no references). Are these engineers still around? It sounds like we are in someone's grow house, a bit like an indoor vegetable or weed grower's garden.

Also, what powers the Sun lamp?

It is the turbulent ether wind which rotates the lamp around itself, probably in a vortex fashion as the ether spins East to West (not the Earth spinning West to East) and vortexes (cyclones) are also very common weather patterns. It is the turbulent ether which seems to account for all "unresolved forces" and so it is extremely likely that this is what also powers the Sun. Considering how much power the Sun gives the Earth in terms of heat and light to enable the life cycle on Earth to function (not including the infinitesimally tiny amount of energy people harness from solar power), the ether must possess virtually unlimited energy; at least energy as we know it, (largely manifesting itself as movement; whatever that is). Obviously, we need

to find out how to tap this unlimited energy river directly instead of relying on the indirect byproducts of the Sun machine or the wind.

How long has the Sun been in the sky?

When was it manufactured and switched on?

How was it manufactured?

What is the lifetime of such a piece of equipment?

Man-made sulfur lamps last indefinitely (forever), but the Sun lamp is losing a little bit of itself all the time (meteors) due to power surges through the graphite electrode.

Does this limit its shelf-life? probably… or maybe not.

Who knows?

Lastly, if the Sun is a light-bulb with the Firmament coated around like a glass lamp shade, this would explain so many of the optical effects that Enclosed Cosmetologists talk about.

The Electric Sun: The "Nuclear Furnace Star" Hoax Exposed

Stellar Electric Light Bodies

"In the incandescent Sun is all idea that Earth knows. The idea of the apple of Earth is in the Sun, likewise the wood of the tree and the violet in the meadow. Likewise, the cool Earth is there with its rivers and mountains. All idea is one idea in the light of the Sun. The light of the Sun is never divided into its many seeming separate ideas until it is electrically extended from the Sun and those extensions electrically echoed back to it. The Sun is a crucible which melts all ideas into one, then sets them out into space to cool and separate into many units of that one…all moving extensions of the one still light, as manifested in the white Suns and the black light of their surrounding spaces, are but extensions of one Source". (Page 52, The Secret of Light)

The evidence confirms that the Sun is not the theoretical egghead "nuke furnace" as claimed by academics

The Sun's Corona is Millions of degrees according to academic scientists. Do you see just how confused these folks are? There reason for believing this absurdity is they think x-rays from the Sun are generated thermally, which they are not. So-called electrons are accelerated through the Sun's so-called EM "field" to create so-called "x-rays". (this is the alternative academic explanation using academic language).

"Scientists today state that the Sun is a gigantic atomic nuclear furnace radiating a tremendous amount of heat to the satellite planets each second. The temperature at its surface is said to be thousands of degrees (5800 K), and the internal temperature (and Corona) are supposedly in the millions of degrees. However, it is unexplainable how superheated gases can act magnetically. For it is an elementary fact of physics that a substance loses its so-called magnetism when heated! Since astronomers have definitely recorded magnetic effects upon the Sun, we have a direct conflict between the Sun's true nature and the suggested temperature. This conflict only indicates that the Sun is not the superheated mass of gases that scientists

think it is, but rather a cool body as Herschel (Viktor Schauberger and Rudolph Steiner) said it was.

Astronomers base their calculations on two assumptions: First, they assume the Sun is a perfect radiating body; second, and most important, they assume that the Sun is radiating heat! This is because they believe that heat on Earth, as well as heat on other planetary bodies, comes directly from the Sun. People feel the heat when they stand in sunlight, so they say the Sun must be a burning mass radiating that heat. That is like saying a radio transmitter radiates sound waves because when we turn on our radios, we hear sound. But we know that such a transmitter radiates radio waves, and that these waves are turned into sound inside the radio!" (Luis E. Prada) Conversion from one form to another is the key and that is what happens here on Earth as the Sun's expanding electric light is converted to heat.

Adios Solar Nuclear Furnace

So how can there be the massive Solar magnetic fields observed, in these extreme temperatures, since substances lose their magnetism when heated? The tragically failed, nuclear sun theory, also claims that the core of the Sun is 15,600,00o degrees K, the surface is supposedly 5,800 degrees K and the Corona is over 1 million degrees K and sometimes as hot as 30 million degrees K, if you can stomach that. By what manner does the Sun perform this magic that defies all reason, probability and possibility? Or, could this just be another egghead trick based on the flawed mathematics of bush's beloved, "nuclear theory of the atom"? The cause lies in the inability of their model to explain anything, therefore ad hoc assumptions must be inserted into their "knowledge" so that these flaws can be kept in the dark and they can pretend to understand their field of so-called study.

"One aspect concerning our Sun and our conception of it does need to be examined, namely the question of temperature. In our understanding of temperature, we generally consider it to be a measure of heat. For most of

our customary purposes this is indeed the case. However, when speaking of the temperature of the Sun, for instance, which is supposed to be about 6000 degrees Celsius at the surface and 20,000,000 degrees C at the center, we may no longer be concerned with thermal temperature, but rather with energetic activity, for according to Isaac Asimov:

Temperature here has to be distinguished from heat. The temperature is a measure of kinetic energy of the atoms and particles in the gas, but since the particles are few, the actual heat content per unit of volume is low.

Moreover, if interstellar space is a near absolute vacuum with thermal temperature of -270.15 Celsius, then how does the Sun's supposed heat ever reach us, since, being able to pass through an extreme vacuum, a denser medium is therefore necessary for the propagation of heat rays or infrared rays?" (pages 77-80, Living Energies, by Callum Coats)

Our Sun's Electric Vortices

"It happens that the proton-proton chain, very important in the sun, begins with a most improbable event: the collision of two protons resulting in the formation of . . . the heavy isotope of hydrogen called deuterium. Usually the formation of a compound nucleus of two protons simply breaks up into two protons again, rather than ejecting a positron and turning into a deuteron, and very many compound nuclei must form to produce appreciable amounts of deuterium. But even at the high (theorized) temperatures of stellar interiors it is extremely hard for two positively charged nuclei to come together to undergo any kind of reaction. One might not expect nuclear reactions to occur at all in stars." (Exploration of the Universe, George Ogden Abell, D. Morrison, S.C. Wolff, 5th edition, 1987, p. 520.) (Advanced Atomic Energy Converters)

Our Sun's Cold Electric Plasma

"In such cases as this, where the general trend of thought in any field is on the wrong track, the reason almost invariably is the uncritical acceptance of some erroneous conclusion or conclusions. As will be brought out in detail in the pages that follow, astronomy has unfortunately been the victim of two particularly far-reaching errors, The latter portion of this volume will examine a wide variety of phenomena in which the true relations have not heretofore been recognized because the general submission to Einstein's dictum that speeds in excess of that of light are impossible has diverted inquiry into unproductive channels (more dark futile attempts, which benefit the moneymen). The theories applicable to the more familiar astronomical objects that will be discussed in the earlier chapters have been led astray by another erroneous conclusion also imported from the physicists. This costly mistake is the conclusion that the energy production process in the stars is the conversion of hydrogen to helium (the nuclear furnace theory) and successively heavier elements.

Stellar Jets are evidence of a Star's Twin Opposing Electrical Vortices

Thus far, the thinking about this subject has been dominated by the physicists "insistence that the most energetic process known to them (nuclear fusion) must necessarily be the process whereby the stars generate their (imagined) energy, regardless of any evidence to the contrary that may exist in other scientific areas.

The Nested Electro-Magnetic Vortices in Spherical Systems: Atoms, Suns and Galaxies. Note the spinning Sacred Geometries which give form to these twins opposing EM Vortex systems

The most recent change, from the gravitational contraction hypothesis to the hydrogen conversion hypothesis was preceded by a long and acrimonious dispute with the geologists, whose evidence showed that geological history required a great deal more time than was allowed by the gravitational contraction process. Ultimately the physicists had to concede defeat.

Then gravitational contraction was recognized as more potent, and became the physicist's orthodoxy, defended furiously against attacks by the geologists and others. Now the hydrogen conversion (nuclear furnace theory) process is the canonical view, resting on exactly the same grounds that crumbled in the two previous instances. In each case the contention was that there is no other tenable alternative. But in both of these earlier cases it turned out that there was such an alternative. (Chapter 1, The Universe of Motion)

"A serious objection is that reactions of this kind are reversible and there is no adequate reason why the reaction between helium and the hydrogen isotope H^1 should proceed preferentially in the direction H -> He. The situation with respect to the H^2 and H^3 isotopes is entirely different. These isotopes are unstable under terrestrial or similar conditions and are therefore subject to reactions which convert them into stable isotopes. Such reactions take place spontaneously but can be speeded up by application of additional kinetic energy and if H^2 or H^3> are present in the stars in substantial quantities a process of conversion to Helium 4 could be an important energy source. Available evidence indicates, however, that most of the hydrogen in the stars is in the Helium 1 state, as would be expected from the probable level of magnetic ionization, and Helium 1 is just as stable as Helium.

At a very high temperature the chances of an atomic break-up and rearrangement are unconfirmed but this does not necessarily increase the proportion of helium in the final product; on the contrary, we have seen that a greater kinetic energy results in more fragmentation and it therefore favors the smaller unit rather than the larger. Furthermore, an increase in the amount of space displacement (thermal motion) is not conducive to building up time displacement (mass). The two principal processes which have been postulated as stellar energy sources begin with the reactions $H^1 + H^1 \rightarrow H^2$ and C12 + H^1 -> N13 respectively. These reactions involve combination of stable isotopes to form unstable isotopes and combination of smaller units to

form larger units. In both of these respects the direction of the proposed reactions is in direct opposition to the normal probabilities under the prevailing conditions.

Solar Electric Vortices

Visible confirmation that the Incandescence of our Sun is manufactured in the Upper Atmosphere of the Sun, not in a nuke furnace at its core according to academic guesswork. Note the Dark interior atmosphere below the roiling upper atmosphere interacting with "315 Billion volts" of imploding Electrical Pressure, according to Nikola Tesla. This incandescence does not produce the millions of degree temperatures theorized by academics, because of their dysfunctional understanding of x-ray generation being thermal, instead of it's true cause, which is electrical.

A second objection to the hypothetical fusion reaction is that it is a "dead end" process, and as such is open to criticism from both the theoretical and the observational standpoints. The Fundamental Postulates definitely require all basic physical processes to be cyclic and any one-way process such as the conversion of stellar hydrogen to helium violates this general principle. Also, if this hypothesis were valid there should be some evidence of the existence of helium-rich structures, representing the later stages of the hypothetical stellar evolution. No such evidence is available". (The Structure of the Physical Universe, Chapter XXXII)

"We need go no farther than the first deduction that is made from the assumed existence of the hydrogen conversion process to encounter a glaring example of the way in which this pure assumption is allowed to override the astronomical evidence. In application to the question of stellar ages, this hypothetical process leads to the conclusion that the hot, massive stars of the O and B classes are very young, as their output of energy is so enormous that, on the basis of this hypothesis, their supply of fuel cannot last for more than

a relatively short time. It then follows that these stars must have been formed relatively recently, and somewhere near their present locations.

No theory that calls for the formation of stars within the galaxies is plausible so long as the theorists are unable to explain how stars can be formed in this kind of an environment. One that, in addition, requires the most massive and most energetic of all stars to be very young, astronomically speaking, converts the implausibility into an absurdity.

On this basis, the globular clusters are the youngest aggregates of matter, and the stars of these clusters are the youngest of all stars. Thus, the astronomers have their age sequence upside down.

The existence of this multitude of commonly recognized contradictions and inconsistencies is a clear indication that there is something radically wrong with the foundations of present-day astronomical theory". (Chapter 1, The Universe of Motion)

It is claimed by astronomers that the largest and brightest stars are the youngest, because they believe stars require a nuclear fuel, therefore when they are young they are biggest, because they are full of fuel, like a full tank of gas in your car. Then by burning their fuel they get smaller, like less gas in your car's tank. They start out as large Blue tanks and end up as smaller Red tanks of fuel. This is the exact opposite of the reality by which they operate. The largest typical stars are the adult stars and the smallest are the newborns. They evolve overtime into adult stars as they grow, just like everything else in nature, until they reach their age or temperature limit and explode as supernovas, throwing off rings as they expand, which will birth new astronomical systems in their wake.

The academic obsession with a "fuel" for stars to "burn" is clearly an artifact of the energy baron's manipulation of academic theory, with the funding, peer selection and tenure processes under their influence or direct control. It profits them greatly for humans to blindly believe that in order to

get energy to do our work, we must burn something, which they just happen to own and sell at great cost financially and to our environment as well. Being that their current profits are astronomically higher than any time in recorded history, we see immediately how much they have to lose if mankind frees itself from their lies. Extending the burning concept from their dysfunctional machines to stars insures them that mankind will continue to believe that there is no other way to get our energy in great quantities than by blowing up or burning their fuels. In the darkness of this false theory mankind will believe that even the stars must burn fuel and therefore, this is the very foundation of energy production in nature. However, this is easily confirmed to be a lie.

"The basic energy production process in this universe we find, is the conversion of rotational motion (mass) to linear motion (energy) at the age and temperature limits of matter. This one process accounts for the entire range of energy generation, from supplying the modest 'fuel' requirements of the quiet stars, to providing the enormous energy required for the ejection of a quasar. And it requires no special conditions or unusual circumstances to bring it into operation. All matter eventually arrives at one or the other of these limits". (Chapter 18, The Universe of Motion)

The big scary nuclear furnace Sun, raging at tens of millions of degrees is just another grandiose absurdity of academic proportions.

"The idea that stellar power is not generated by any of the commonly accepted reaction chains (nuclear furnace theory) has another consequence, namely that our beliefs about stellar ages will be wrong. Stellar ages are inferred from our beliefs that stars derive their power from converting hydrogen into helium. If our beliefs about this process are erroneous, then stellar ages will have to be revised. Generally, this will mean that what are currently believed to be old stars are actually young, and that the young stars are actually old. Because of the implications of this, our views on the

"evolution" of the universe must also change drastically". (Advanced Atomic Energy Converters)

"It is well to remember for example that the idea of an infinite and basically non-evolving universe had begun to take root long before the observations of uniformity had become available. This was at a time when it was thought that the universe must go on working for ever like some huge powerful perpetual motion machine. Towards the end of the 19th Century, however, this idea had run into difficulties with the empirical second law (theory) of thermodynamics. Thus, it has become increasingly clear that it was a natural and inevitable property of all machines we could study in the terrestrial laboratory that their energy eventually became randomized or degraded into heat. Bit by bit, the energy capable of doing productive work wasted away. The ultimate fate of the world seemed therefore to suffer a 'heat death'.

Physicists were forced to accept what is the 'law (theory) of increase of entropy' (i.e.. the irreversible dissipation of energy) on the largest scale and they became accustomed to the idea of an evolving universe. The ground was thus well prepared for the discovery (theory) of cosmic expansion. It follows then that if the large-scale uniformity referred to above, in space and time, were truly a fundamental fact, we might have to abandon the 'doppler interpretation' of cosmological red-shifts and the entropy problem could still be with us. The suspicion would be reinforced that, contrary to local thermodynamic 'laws', there exists places in the universe where entropy is reduced (neg-entropy) rather than increased, where dissipated heat energy is somehow collected and converted back into organized motion". (The Cosmic Serpent, pgs. 18-19)

As we read through this honest confession of two Scottish astronomers above, it is clear that they see at least partially, the problems with the way astronomy proceeded from its inception. The first mistake was to see a galaxy as a man-made machine operating within the confines of the terrestrial

environment. Galaxies do not operate like manmade machines, they function according to their twin imploding electrical vortices which gravitate potential energy and radiate kinetic energy. These vortices convert the "potential energy" of "space" into the "kinetic energy" of Suns, which is a cyclical process. The space surrounding the Stars are the Star's inverse conditions which are constantly flowing back to their centers and radiated outward again perpetually, because this is the nature of the twin opposing electro-magnetic vortices, which give all matter form.

The imaginary unidirectional dissipation of energy into nothingness (heat death) is absurd and is typical of the unidirectional thinking of academicians. Galaxies do not operate in an atmosphere which produces friction, they are in space which does not produce friction. The celestial mechanics there are vastly different than the physical mechanics on the surface of our planet, with its gravity and friction, which produce resistance to our man-made machines. Because academics were "forced to accept" the absurdity of the provably wrong second (so-called) law of thermodynamics as stated above, they extended these false ideas into more bizarre ideas like an imagined "heat death" and universal annihilation (entropy).

Electric Vortices and Sun Spots

This fallacious belief was further extended to an idea of an "evolving universe" and consequently it had to have a beginning with a "huge wank", otherwise known as the academic big bang theory. Can you see how simple the child like assumptions of academicians are? They start by comparing manmade machines which are totally "unnatural", to the natural Galaxies of creation. Our man-made machines are in fact working against nature in our terrestrial atmosphere, due to their unnatural backward designs and the limiting conditions they operate within. Galaxies in great contrast are Nature itself and therefore function naturally. Then academicians extend these false ideas further and further away from reality into their dream worlds of

analogies where the comparisons made are not even remotely similar to the objects they pretend to study.

Does a galaxy look like a manmade machine to you? If so, I may never be able to reach you with my dissenting assertions. When they state, "The suspicion would be reinforced that, contrary to local thermodynamic laws, there exists places in the universe where entropy is reduced rather than increased, where dissipated heat energy is somehow collected and converted back into organized motion", they are admitting it, without knowing the answer. There is a cyclical process totally unaccounted for in newton' fallacious 2nd law (theory) of thermodynamics, which is fully accounted for by the twin opposing north and south polar electro-magnetic vortices which recycle radiated kinetic energy from its "potential form" in nebulous space, back into kinetic energy in the condensed form of incandescent stars, perpetually via implosion.

Galaxies are visibly vortices. Has it never occurred to these academic dummies that vortices suck into themselves (implode) which is a cyclical process as they radiate their wondrous electric light outward? Unfortunately, the very obvious escapes their academic intellects, because they are mentally imprisoned by so-called academic laws which are in fact, dysfunctional theories and not laws at all. The fact that they compare the unnatural manmade machines on Earth to a natural Galaxy in space, reveals instantly, how out of touch academics are with reality. Furthermore, when they say, "there exists places in the universe where entropy is reduced (neg-entropy) rather than increased, where dissipated heat energy is somehow collected and converted back into organized motion. They are treating this anticipated cyclical process as if it is the exception, whereas, this is the fundamental means by which all motions of the universe operate, from the so-called subatomic, to the super galactic. It is not the exception, it is the very foundation of creation in all of its forms.

In the cyclical spiraling nature of eternity there is no need for a single direct line of evolution towards some perfected form from another less perfected form, because the spiral towards evolution is unwound by the spiral of de-evolution. Everything in this Universe is birthed, then it "evolves" to maturity after which it grows old (de-evolves) and dies and is reborn again as something else. Since the Universe was not birthed according to the provably untenable "big bang scenario", it is not evolving. It would actually be de-evolving according to this failed theory based on a "big bang", from a state of organized matter and energy (the observable galaxies and stars) into absolute nothingness (entropy). This ugly academic theory of "universal annihilation", is due to a falsely imagined, "heat death" because of the theories of those scientists who are slaved into the false and discredited, unidirectional thermodynamic "laws" of academic construction.

"Principles outlined in a previous article, Advanced Stellar Propulsion Systems, give us reason to believe that the age of a stellar system will correlate directly with the total mass of that system. A binary star system would be older than a single star. A globular cluster (currently viewed as "very old") would be regarded as much younger than a spiral arm galaxy. The oldest star systems would be the giant spheroid galaxies like the one in M87.

Mainstream scientists are now beginning to realize that stars may be older than galaxies. (Science News April 15, 1995, Vol. 147, No. 15, p. 230 "Keck finding: Did stars predate galaxies?") They are also perplexed by evidence that the universe appears to be younger than the oldest stars in the universe. Again, these problems originate largely because of misunderstandings about the true mechanism of stellar power (nuclear furnace fallacy), as well as their belief in the "Big Bang" origin of the universe" (Science News 10/8, 10/22, 10/29 (1994) V146, Nos. 15,17,18, pp. 232-234, 265, 278; 9/9/95 V148. No. 11, p. 166) (Advanced Atomic Energy Converters)

"The ionization level in the chromosphere, corresponds to the thermal ionization which would exist at a temperature of 20,000° to 30,000° K and in order to explain the still stronger ionization in the corona on a thermal basis it would be necessary to assume a temperature in the neighborhood of one million degrees. The observed level of ionization is therefore inconsistent with a thermal origin unless a highly abnormal temperature situation exists in this region and no convincing reason why conditions should be abnormal has ever been discovered. We are thus led to the conclusion that the ionization is not thermal and that it is a product of the cosmic radiation which, according to theory, should be causing just the kind of an effect which we observe. In the light of this explanation the location of the maximum ionization in the outer regions of the corona is to be expected, since the matter in this zone is exposed to the maximum cosmic radiation. As this radiation travels inward, it is gradually attenuated by contacts with the diffuse material in the intervening space and the degree of ionization of the material atoms is reduced accordingly". (The Structure of the Physical Universe, Chapter XXXVII)

The Electrical Birthing of Stars

"Plasma cosmology easily steps over this line in the sand which the big bang stumbles. Electrical double layers associated with active galaxies and quasars generate copious amounts of x-rays, and they do it 'the easy way', by accelerating electrons through an electric field, just like your dentist does. There are no black holes lurking in his x-ray machine". (The Electric Universe) (Nor, are there any black holes lurking in the real Universe for that matter, eggheads!)

"The conclusions with respect to the origin of the x-rays that are observed in the vicinity of the giant galaxies are also applicable, on a smaller scale, to the production of x-rays in the surroundings of individual stars. These x-rays are believed to originate in the stellar coronas, and it has

therefore been concluded that" temperatures of a million to 10-30 million degrees. "228 exist in these coronas. Here, again, the existence of such temperatures is excluded by basic thermal principles. Consequently, the x-rays cannot be produced thermally in these locations. But, as in the galactic situation, the x-ray production is easily explained on the basis of leakage of intermediate speed matter from the interiors of the stars, followed by a return to the low speed range in the coronas (which are Scalar attributes).

In the light of what is known about the fundamentals of heat and temperature, a high temperature in a medium as sparse as that of intergalactic space is impossible. As explained in Volume II, the temperature of a gas is the result of containment. The pressure is a measure of the containment, while the temperature is a measure of the energy imparted to the gas that is subject to pressure. Thus, the temperature, T is a function of the pressure, P. For a given volume, V, of "ideal gas," the two quantities are directly proportional, as indicated by the general gas law, PV = RT, where R is the gas constant. If the pressure is very low, as in the near vacuum of intergalactic or interstellar space, the temperature is likewise very low. It is measured in degrees, not in millions of degrees. It is often asserted that portions of the gas in the vicinity of hot stars (coronas) or active galaxies are "heated by radiation" (the theoretical synchrotron process). But radiation does not repeal the gas laws". (Chapter 19, The Universe of Motion)

So, we can know say "sayonara" to the luminous crown of the common astronomical egghead, the "1 million to 30 million degree" solar Corona.

"Funny thing about that term "heat" – when relating it to plasmas and things in space, it's not necessarily describing 'high temperature' (though often termed x million degrees) so much as describing 'high energy'. Heat as we generally know it is caused by the movement of particles, that is, the more they move, the 'hotter' the substance they make up becomes. But plasmas in space are (mostly) so diffuse that to think of them as physically 'hot' may be a misdirection of thought, rather they are physically 'energetic', that is their

particles are vibrating so hard or moving so fast that they show lots of 'temperature' without the whole medium 'feeling' hot, so to speak".

The age old idea that the heat from the Sun "travels" through the immense cold of space to heat our planet is false, because once again, it is based on appearances. As can be seen above, heat traveling through the near freezing, near vacuum of space is impossible. The condition of the Sun's positive electrical polarity is repeated on the side of the Earth which faces the Sun. The negative radiating vortices of electrical force spiraling from the Sun (anode) reach "the inertial plane of equal pressures between the Earth and the Sun where there is a reversal of the reproduction of an expanding counterpart into the reproduction of a contracting counterpart". (The Universal One, Pg. 30)

These negative unwinding vortex waves become positively imploding vortices as they spiral through the electrical pressure gradients and atmospheric lenses of Earth. The wave-fields are compressed and concentrated toward the Earth's center as they curve inward on their implosive journey through the convex, "lens like" atmospheric and electrical pressure gradients, thereby producing light on the side of the Earth facing the Sun (cathode).

This process produces heat here on our planet as the Actinic Force of the positively imploding currents of electric light react with the negative (grounding) physical matter of our world. A magnifying lens used to start a fire, works upon this principle of bending and compressing wave-fields in this same manner. The night side of Earth is simultaneously discharging these positive Solar vortex currents through the "lens like" atmospheric and electrical pressure gradients via the negative electro-magnetic radiation of heat and light otherwise known as cold and darkness, respectively.

Stellar Temperature Tables according to Flawed Academic Astronomy

Academic Astronomical tripe: "Think about this for a moment. How can scientists know how hot a star is, if they have never visited it? Imagine a fire. When you look at the hottest part of the flame (the part closest to the wood) the fire looks blue. As the fire gets further and further from the wood it gets cooler, and the color changes first to yellow, and then to red. Scientists know that a blue star must be a very hot star, while a yellow star is a medium hot star, and a red star is a cool star". (Stars)

The above statement should be stated, "scientists assume" that the stars colors are indicative of their variations in the "extreme, million degree plus temperature ranges" attributed to them, because they do not "know", they are guessing with their theory. Once again, these flawed "scientific" ideas, are based entirely on "appearances" (sensory based information) and not on "Knowing" (Mind – Self Knowledge). They are not even "reasoning" correctly with their flawed analogy, which demonstrates the exact opposite of their theory. The "nuclear fire" gets hotter, not cooler, high up in the Corona, it's claimed to be a million to 30 million degrees hotter than the surface, according to this cruddy scholastic nonsense.

These academicians are describing Stars as if they were made of burning wood, as it is seen in the atmosphere of our Earth as an analogy. I am pretty sure we'll all agree the Stars are not made of wood any more than the Moon is made of cheese.

The color classifications attributed to Stars and their imagined "millions of degrees" temperatures are actually varying degrees of electrified conditions of the Stars according to their mixture of gases and metals, their sizes, the variations in the electrical pressure conditions of the wave-fields they center and the strength of the electro-magnetic Birkeland currents (sympathetic streams) flowing through these

wave-fields, as they interact with the other Stellar wave-fields which are spiraling in massive vortices around the Galactic Center.

The temperatures in the millions of degrees associated with this theory have no basis at all in reality, they are a guess based on "black body radiation theory", which has been tagged onto "star temperature theory", much in the same way that the "theoretical electron of mathematical imagining" was tagged onto the Mendeleev periodical table, purely out of convenience, as an easy way to "explain something" , which has no actual basis in reality. The electrons created by mankind are not remotely related to the electrons of the periodical table, they are two entirely different creatures. One is real and is used daily by humans, the other is a theoretical myth, which lets physicists pretend like they have a theory.

These imagined temperatures are the result of astronomers clinging to physicists with their "nuclear theory of the atom" and the "nuclear furnace theory" of stellar energy production as a way to explain variations in the magnitudes and appearances of the stellar light they view with their limited sensory based gear (telescopes), when they peer out at the fiery globes and galactic vortices populating our Universe.

Luminosity and Temperature Evaluations Ignore the Electric Star Hypothesis

This academic guess is based on the appearances of light and they do not even "know" what light is, whether particle or wave, so once again, how are we to trust them? I think we can safely disregard the academic color scheme of the extreme temperatures attributed to Stars, because it is based upon the appearance of light, which is a simulation, not its cause. The comparison of burning objects here in our atmosphere to the electrical motions of incandescent stars in cold dark space, is of course imbecilic, there is absolutely no relationship between the two. So, here again academicians reveal just how far they are removed from the very reality which they are supposed to be studying for the benefit of mankind.

The same can be said for the "gravity" of a Star or Galaxy bending light from other Stars or Galaxies, according to Einstein's four dimensional, curved space and time fantasy. "Magnetism is known to interact with light, as demonstrated by the Zeeman and Faraday effects. The starlight refraction has no relation to, nor interaction with, the gravitational field of the Sun, or warped space systems" according to Einstein's imagination. Refraction of light waves due to a Star or Galaxy's Electro-Magnetic, "lens like", plasma and atmospheric wave-fields is the cause, not the imaginary text book version, hawking Einstein's claim that: gravity lines of force, "curve space" around heavenly bodies and drag the imaginary "photon wave trains" with them.

Time as used by mankind is not another dimension according to Einstein's crazy notion of four-dimensional space and time. Time as used by mankind, records the motions of material objects within the three dimensions of space we are accustomed to measuring the Universe with. It is not a separate dimension.

G.R.: Einstein's "Goofy Religion" of 4-Dimensional Space Time Imprisonment

"Concentrated spheres, such as Earth and Sun, are surrounded by layers of light of equal pressures. Clouds float around the Earth in them. The reason they float in curves parallel to the Earth is because of these spherical equipotential planes of pressures which curve as the Earth curves. Curved pressures of light act as lenses to multiply and divide light radially. (Spiraling) Light rays which pass through curved planes concentrate to a point when projected through light lenses of space in the convex direction and decentrate when they pass through the concave direction." (The Secret of Light, Pg. 244)

"To say that in the presence of large bodies space 'becomes' curved, is equivalent to stating that something can act on nothing. I for one refuse to

subscribe to such a view". (Nikola Tesla, New York Herald Tribune, 9/11/32)

Albert Einstein's Supercalafragilistic Magic Kingdom Theory of Space Time Curvature

Since space has no mass according to the self-appointed "scholars" of Scientism, how can Gravity "pull" on it and bend it in accordance with Albert Einstein's Supercalafragilistic Magic Kingdom Theory of Space Time Curvature?

Mass determines Gravity, according to academic theory. This bizarre idea came from a guy who could not tie his own shoe laces and flunked math. Now do you get it? Empty space does not curve, in our measurements of it. The three-dimensional Euclidean Space we are accustomed to using in our physical observations and descriptions of The Universe, as a reference system, is the direct measure of distance between physical objects, which is measured in straight lines, not curved ones, and is described within the x, y and z coordinates of the academically sanctified Cartesian System.

It is, therefore, impossible for space to curve according to the fundamental academic definition of its measure. Since Space is vacuous, according to academic Scientism sources, there would be nothing to create curves within their silly academic theory.

They want you to believe that NOTHINGNESS is curving.

Don't fall for it.

The Sun and The Moon Are Suspended by Electromagnetic Forces, and The Star and Planets (Wandering Stars) are Merely Sonoluminescent Luminaries

The Sun and The Moon

"Earth is a realm; it is not a planet.

It is not an object, therefore, it has no edge.

Earth would be more easily defined as a system environment.

Earth is also a machine, it is a Tesla coil.

The Sun and Moon are powered wirelessly with the electromagnetic field (The Luminiferous Aether). This field also suspends the celestial spheres with electromagnetic levitation. Electromagnetic levitation disconfirms Gravity because the only force you need to counter is the electromagnetic force, not Gravity. The Stars (and "Planets": Wandering Stars) are attached to the firmament."

--Nikola Tesla

Think of the Sun and the Moon as complimentary poles of a singular electromagnetic system, The Sun being positive, and the Moon being negative. They circle, electromagnetically, above us around the North Pole, Polaris. The Sun transfers electromagnetic energy to the Moon via transduction, and The Moon uses that energy to illuminate Herself. However, The Moon does not reflect The Suns light. The Sun and the Moon serve as a great clock, spinning above us. The Moon gives the month (Moonth), and the Sun gives the hours and days.

The Sun and Moon revolve around the Earth once every 24 hours illuminating, like spotlights, the areas over which they pass. The Sun's annual journey from tropic to tropic, solstice to solstice, is what determines the length and character of days, nights and seasons. This is why equatorial regions experience almost year-round summer and heat while higher latitudes North, and especially South, experience more distinct seasons with harsh winters.

The Heliocentric model claims seasons change based on the ball-Earth's alleged "axial tilt" and "elliptical orbit" around the Sun. Their flawed current model places us closest to the Sun (91,400,000 miles) in January when its actually winter, and farthest from the Sun (94,500,000 miles) in July when its actually summer throughout much of the Earth. In other words, The Heliocentric Model is exactly 180 degrees in opposition to the scientific data.

They say due to the ball-Earth's tilt, different places receive different amounts of direct sunlight and that is what produces the seasonal and temperature changes. This makes little sense, however, because if the Sun's heat travels over ninety million miles to reach the ball-Earth, how could a slight tilt, a mere few thousand miles maximum, negate the Sun's ninety million mile journey, giving us simultaneous tropical summers and Antarctic winters? Again, The Heliocentric Model fails to explain what we actually experience and observer.

The Electromagnetic Earth

Matter is an alternating magnetic field (Gerlach experiment). Therefore, EM waves are constantly being emitted (as EM waves are being produced by alternating magnetic fields – see radio waves). I think this interpretation is foundational. Now when I spin my spoon in my coffee in the morning I produce one large vortex. When I spin it the other way (which I always do

when stirring food and drink for some reason), I notice one or two or more very small vortices are formed which spin out away from the center of the liquid until they dissolve. I think these vortices are EM waves in the "Aether" which are being produced all the time. It is easy to see how these are produced. When the direction of the large magnetic vortex is reversed it creates a counter flow inside the large vortex, with the original vortex flowing the other way, so little vortices are created and spin out. You will also notice turbulence in the counter spinning. This I believe is friction and creates heat. There are probably other ways to create these EM vortices without the constant counter-spinning which creates the heat side effect. I have a few ideas there too, but I will leave those to myself.

Alright, let's give this a whirl (no pun intended). Remember this is a purely hypothetical construct and so isn't to be taken seriously, but merely as a curiosity. The ultimate aim is to marry the Aether moving through the holes near the poles and the "electrons" which power the Sun and offer a theoretical explanation of upward bending light. Due to its hypothetical nature, this is the only article in the "Concave Earth Thesis" section which you can safely skip and move on to the Gravity article instead. That is why this article isn't in the main side menu.

Whirlpool Formation

The Aether (or electromagnetic current if you are still too scared to use the "forbidden" word) shoots the quickest out the holes straight up vertically directly into the opposite pole hole and at a slower speed laterally, especially along the crust. As it moves over and through the crust it will start to slow down. A similar principle can be seen in river currents where the water at the edges of the river is the slowest. The difference in speeds between the water at the bank of the river and that further towards the center creates small whirlpools which belong to the phenomenon known as eddy currents.

What is an eddy? In simplest terms, it's a place where the current of a river slackens suddenly, or even reverses itself. Eddies are characterized by circular flow patterns. A whirlpool is a kind of eddy…

Whirlpool-Eddy

A small whirlpool eddy formed in the Merced river in Yosemite national park California.

The Aether through the holes would follow the same principle. A river only runs along a surface and so its changes of pressure are on the horizontal plane only. It is in effect 2 dimensional. The Aether traveling through the holes near the poles not only exhibits changes in pressure horizontally as it travels through the silicate crust (like a river), but also vertically from the fastest stream pole to pole (central vertical axis of the Earth cavity), to the slowest stream through space which is just above the crust. This gives us the two right-angle swirls or eddy currents.

The electric whirlpool (EW) is spinning radially into the open end of the magnetic whirlpool (MW), which causes a reduction in Aetheric pressure between them both. This causes a mutual attraction between the two vortices with the electric whirlpool lodging itself inside the magnetic one, thus forming the basic electromagnetic "building block" or particle.

EM-Particle

The Aether pressure is greatly reduced between the two whirlpools sucking them together to form the absolute most basic EM particle.

EM-Double-Whirlpool

A small electric eddy whirlpool stuck in the magnetic one is nearly the same size as its "captor".

An analogy, albeit very weak. When a small air ring in water moves through the other larger one, it remains the same size as the larger one and turns at right angles, neither moving up nor down. Does this show a natural right-angle affinity in vortices?

In effect, the electric whirlpool (EW) is wedged into the magnetic one. Of course, there would be electric and magnetic whirlpools of different speed rotations, strengths and sizes etc. But generally, there would be a lot of uniformity due to the uniformity of the composition of the Earth's crust (90% silicates, 28% silicon) and the size uniformity of the near-spherical Earth cavity. The size of both joining whirlpools must be a pretty good match so that one can fit inside the other, hence why it is likely no accident that the Earth is shaped as it is, and the crust is made mostly of silicates. Of course, there would be friction between the two whirlpools causing the electric whirlpool to bobble and oscillate very tightly within the magnetic one. If the electric vortex were too small it would be sucked into the magnetic whirlpool (MW) and either spat out or more likely realigned with the bigger magnetic vortex and become reabsorbed, thereby making the magnetic whirlpool bigger. If it were too big, it would bounce off until the smaller magnetic vortex gets sucked into the electric one and is probably absorbed (or perhaps spat out) this time making the electric vortex bigger.

The EW just fits into the MW which makes it slightly smaller. This means that the end of the EW pumps Aether into the wall just below the rim of the MW and not over it to the outside world. This pushing on the magnetic whirlpool's wall spins the entire EM particle (both EW and MW) around another axis. The magnetic whirlpool still pumps some Aether out of its end which always moves the EM particle up a little bit; hence the overall movement starts off as a spin with a slightly open center in the middle of what is now a toroid shape.

Toroid-Pentagram

As the EM particle starts to spin, a toroid is formed with a gap in the center due to the two whirlpools pumping Aether out of their ends.

As the EW spins, the centrifugal force acts against the MW's centripetal flow directed towards the center of the toroid. This centrifugal force would only nearly cancel all the MW's centripetal push, because the EW is slightly smaller and hence its spin push is slightly less than the MW's downward thrust, thereby the centrifugal force would also be slightly less than MW's centripetal force. Only the half of the electric whirlpool's snout end nearest to the central eye of the toroid would be equally affected. This might explain why the magnetic wave strength is 3×108 weaker than the electric one. This centrifugal force would make any eye at the center of the toroid extremely small, but still present (the difference in size between the very slightly bigger MW and the very slightly smaller EW).

Swastika-Toroid

The eye of any spin would be nearly wiped out by the centrifugal force greatly weakening the centripetal push of the magnetic whirlpool. This very narrow eye makes the toroid a horn torus.

You noticed that the EM particle is a square shape and keeps this shape if the central eye is very small. However, the act of rotation of the square creates the illusion of a circle… or does it actually make a circle?

A Spinning Square Creates A Circle Within

Another possibility is allowed with this model. The electric whirlpool is creating the centrifugal force, but it is also being affected by it. This must have some cancelling effect on the Aether being pumped out the end of the EW at right angles to the centrifugal force which creates the spin. I don't know how much of the strength of the EW will be affected, but if the centrifugal force cancels a little bit of the EW's right-angled force, then there is less spin and therefore less centrifugal force creating less EW cancellation which will then in turn create more spin etc. and the cycle continues ad infinitum. This will make the eye of the EM toroid continually constrict and dilate; and the circumference of the toroid will be constantly expanding and contracting slightly. This would create regular "bumps" or "knots" in the Aether flow moving through the eye, like a snake having eaten a rat. The

radial spin expanding, and contraction would create longitudinal compression waves in the Aether. This property could give each EM particle its own longitudinal vibrational frequency.

Longitudinal Waves Are Waves of Compression and Expansion

There "may" be some evidence for this in the form of an alleged photo of toroids pumping Aether to and from each other peripherally in the nucleus of an iron atom; however, I can't find it on the internet at least. I've no idea what he means by vibrating jets. I have an impression of a vibrating guitar string, which can be a standing wave. John Worst Keely and Peter Davey spring to mind with their work on resonance. Without the photo though I am only guessing.

Louis Kevran's work on low energy transmutations of the elements was predicted by Krafft's model. And there was a man named Nemos who claimed to have developed a television type microscope not limited by the optical paths of standard microscopes, and I have a photo he took which shows, it is claimed, the nucleus of an iron atom, as a collection of vortices arranged peripherally (non-coaxially). It's like looking down on pearl-like smoke rings connected by vibrating jets. It's an amazing photo. Krafft's prediction was that the proton and electron would be double vortex structures, and the neutron a triple vortex structure. The picture seems to confirm that.

Karl Friedrich Krafft and Hilgenberg were early to mid-20th century German quantum/Aether theoretical physicists who thought that three different arrangements of these vortices made up the entire periodic table. Krafft's book The Ether and its Vortices can be downloaded as well as Glimpses of the Unseen World, and Structure of the Atom. I have no idea if he is correct or not, but it is something to consider if you are interested in taking the toroid hypothesis any further or adapt it.

EM Toroids and the Sun's Electromagnetic Field

But this new free toroid is spinning radially against the Sun's all-encompassing electric H-field. In order to offer the least resistance, it orientates itself so that its tiny eye is parallel to the Sun's H-field sucking in the Aether through this eye, which will widen it a little. In fact, the Aether being pumped through its eye cancels the Aether pressure in front and increases it behind, acting a bit like a rocket moving the toroid upwards. This EM "particle" can now be termed "negative" towards the Sun's electric field.

Electron-In-An-H-Field

The magnetic orientation of a free electron immersed in the Sun's giant electric H-field sucks in the Sun's electric field and pumps it out behind it driving it upwards.

Rocket

A rocket uses a similar principle whereby the rocket moves upwards, and its exhaust goes the other way.

These countless number of negatively orientated spinning EM toroids will now move up through the crust and into the atmosphere towards the glass at 100km. This means that the entire Earth's crust and atmosphere has an upward moving negatively charged field (NCF) which the holes near the poles are entirely responsible for. Due to experiments conducted by Hideo Hayasaka and Sakeo Takeuchi where only gyroscopes spun clockwise exhibited less weight, if may be reasonable to conclude that the upward moving EM toroids in the NCF are also spinning clockwise from the perspective of an observer looking down on the vortex (source esotericscience.com). This makes even more sense as according to magnetohydrodynamics the south pole rotates clockwise, and it is the south pole "sucking" in the magnetic field lines into the magnet.

However, if this is reversed with its center (eye) pumping Aether against the Sun's electric field, the toroid is heavy and now falls to Earth, or is really repelled. This heavy electron is probably what they now call a "proton" (perhaps a different Label Applies To "Protons" In Matter?).

Proton-In-An-H-Field

When a toroid is pumping Aether into the Sun's electric H-field in which it is immersed, it pushes against it, traveling downwards. This toroid is said to be heavy.

As already mentioned in a previous article, a "positively" charged heavy particle, or the "proton", is said to move downwards towards the Earth.

Results indicate that mirror points of protons above the belt are continuously lowered into the atmosphere.

In fact, because during the day there are "protons" moving down and attaching themselves to the glass, this causes more electrons to leave the glass and join the Van Allen belts. This positively charged glass in turn attracts electrons from the crust and atmosphere creating a stronger upward flow in the NCF.

I haven't got the most out of this toroid hypothesis just yet. Let's have a look at light see how it could mechanically bend upwards.

Whirlpools and Photons (EM Waves)

You've probably noticed how similar the EM whirlpools are to photons and the typical EM wave through a wire.

EM-Wave-Through-A-Wire

In order to get this same EM wave with our toroids we would have to stack them in a line with one half overlapping the other. There would now to be a series of whirlpools next to each other, each one spinning in the opposite direction to the next, which means they would also attract (according to Ionel Dinu's work and another Italian experimenter). Because the entire magnetic and half the electric whirlpool have been weakened due to

centrifugal force and coupled with the fact that the EW blocks the other half of the MW from view, the vortices look very much like the typical EM wave.

Light

Counter-rotational radially spinning whirlpools attract each other. The EM particle also spins as a whole to form the toroid shape, each neighboring toroid spinning in the same direction. These whirlpools in series are the real EM wave in 3D.

Notice how although the two toroids are spinning in the same direction, the overlap moves in the opposite direction to each other. Funnily enough, this is what Howard Johnson discovered around 1970 when he used the Hall effect on gaussmeter readings to record particles around a DC wire. (Taken from his book The Secret World of Magnets.)

Dc-Current Loops

Howard Johnson found his "magnetic particles" to loop in opposite directions around the axis of a wire with DC current running through it.

The two toroids superimposed also remind me of the New Age and their Vesica Piscis as the creation of light, as well as Walter Russell who also mentions the square wave aspect.

Vesica Piscis

The wishy-washy New Age may actually be on to something with light as a Vesica Piscis.

"Vesica Piscis is a symbol of the sacred Trinity and point of creation. In early traditions, a sphere was used to represent the perfection of the supreme

being, continually existing with no beginning and no end. The addition of a second sphere represented duality, the division of male and female energies, god and goddess. When the two spheres are overlapped, this is the point of Creation."

-- https://creationcenter.org/sacred-symbolism-vesica-piscis/

Also, the toroids' spin doesn't just push the Aether behind themselves, but also causes the back flow to be shaped as a helix – just like the observations of magnetohydrodynamics. It is also the same principle describing electric current whereby electrons as particles are moving up the wire and the current (or in this theory, the electron pump's Aetheric back flow) is moving in the opposite direction down the wire. "Electron flow" may not exactly be true for current through a wire, as we have just seen, but it is a good analogy for the electron flow around the Sun.

So, although electrons would flow from negative to positive, by convention (agreement), physicists refer to conventional current as a flow from high potential/voltage (positive) to low potential/voltage (negative)… Electrons move from areas where there are excess of negative charges to areas where there is a deficiency (or positive charge). Electrons move from "-" to "+", but conventional current is considered to move in the other direction. When you set up a circuit, conventional current is considered to move from the "+" to the "-" side.

Electron-Helix

When toroids spin, they create a helical back current; whether around a magnetic field or through a wire.

If we were to take this model of light (at least as they would when traveling through a wire) and have it traveling through the negatively charged field, the photons would lift. The lift is the same regardless of the wavelength of light, but because longer wavelengths are bigger, there would be less of them for the same distance traveled. So, if 100 photons are lifted, the gradient over 1km for one wavelength would be the same for a much longer one over say 100km.

NCF-and-Photons

The NCF lifts longer wavelengths less because there are fewer of these photons in a certain distance than shorter length EM waves.

Summary

Remember, these points are mostly hypothetical only and are merely a thought curiosity than anything else.

The Aether through the holes near the poles slows down as it travel along the crust and through space. These speed variations create eddy currents known as whirlpools which are naturally at right angles to each other. The horizontal whirlpool along the crust is now the magnetic whirlpool (MW); whereas the vertically aligned whirlpool is the electric one (EW). Due to reduced Aether pressures which they themselves create, both are attracted to each other with the EW wedging itself inside the MW.

The MW pushes Aether towards the center (centripetal force), whereas the EW pushes Aether against the wall of the MW. This causes a spin around the central axis forming a toroid shape**.**

Centrifugal force does not overcome the centripetal force but greatly weakens it causing the whirlpools to spin very tightly around their axis – the horn torus.

The whirlpool units take up a unit of space that is a cube. A spinning square creates the image of a circle; and so, a spinning cube creates a sphere – the horn torus.

The EW is also weakened by the very centrifugal force that its own spin creates. This creates an expansion and contraction radially, both around the circumference of the eye and the outer rim of the toroid itself. The effects are bulges in the Aether traveling through the eye and regular expanding and contracting waves of compression – longitudinal waves.

A toroid that is pumping Aether in the same direction as the electric field has "lift" and is said to be light. A toroid that is pumping Aether against the electric field is being repelled and is said to be heavy.

In order for the "two whirlpool unit" to look like electromagnetic waves, one toroid must be placed in front of the other, overlapping like a Vesica Piscis. These adjacent whirlpools are spinning counter-rotationally to each other, but the adjacent toroids are spinning in the same direction. The latter causes the Vesica Piscis to look like it has opposing spins.

These toroids are formed in a line with Aether current being pumped out backwards and the toroid fields moving forward. This Aether back current is helical shape due to the toroid's spin (and also contains bulges due to vibration).

The negatively charged field pushes light which is parallel to the Earth upwards. Longer wavelengths have less of an upward gradient due to the larger size (wavelength) of their toroids.

Whether the above hypothesis is true, half true, true within a limiting model for the mind, or complete bullshit, you've done well to read through all this theory. None of this is fundamentally important at all, but at least attempts to offer a deeper mechanical explanation of what could be going on inside the Earth cavity.

However, the only evidence presented so far of the Sun's electric H-field is the holes near the poles and the Van Allen Belts. There is another perhaps even better piece of evidence, and that is the center of gravity in a concave Earth."

-- http://www.wildheretic.com/electromagnetism-hypothesis/

Where Does Cosmic Background Radiation Come From?

The popular myth in science is that the Universe emits a background radiation which pints to a Big Bang. It is all based upon assumption and the ad hoc Faith in a Big Bang.

Cosmic Microwave Background

"The cosmic microwave background (CMB, CMBR) is electromagnetic radiation as a remnant from an early stage of the universe in Big Bang cosmology. In older literature, the CMB is also variously known as cosmic microwave background radiation (CMBR) or "relic radiation". The CMB is a faint cosmic background radiation filling all space that is an important source of data on the early universe because it is the oldest electromagnetic radiation in the universe, dating to the epoch of recombination. With a traditional optical telescope, the space between stars and galaxies (the background) is completely dark. However, a sufficiently sensitive radio telescope shows a faint background noise, or glow, almost isotropic, that is not associated with any star, galaxy, or other object. This glow is strongest in the microwave region of the radio spectrum. The accidental discovery of the CMB in 1964 by American radio astronomers Arno Penzias and Robert Wilson was the culmination of work initiated in the 1940s and earned the discoverers the 1978 Nobel Prize in Physics."—Wikipedia

But upon closer scrutiny, by looking at the REAL WORLD, it is easy to see that this background radiation is nothing other than a product of our known Earth and Firmament and is not the result of some imaginary, science fiction universe that extends beyond the dome above the Earth. Radio waves and Microwaves radiation explain this background radiation ten times more reasonably than the Big Bang Fantasy:

Radio waves

Due to Lenz's law, the Sun changes its magnetic polarity every 6 months. Therefore, the polarity (direction) of the electric field (solar wind) also changes its direction perpendicular to this magnetic field. This alternating current produces radio waves, albeit extremely low frequency radio waves. It is basically an electromagnetic field changing direction every 6 months.

When a direct electrical current is applied to a wire the current flow builds an electromagnetic field around the wire. When the current is removed, the field collapses which again sends a wave. If the current is applied and removed over and over for a period of time, a series of waves is propagated at a discrete frequency. If the current changes polarity, or direction repeatedly, that could make waves, too. This phenomenon is the basis of electromagnetivity and basically describes how radio waves are created within transmitters.

When you slow down the frequency of an alternating current, you generate less and less strong radio waves with a given conductor in which your current flows. And when you stop the current alternation all together, and have a DC current, you do NOT generate a radio wave anymore. What you now generate is a (weak) magnetic field, "attached" to the wire, and which won't propagate.

An inductor (e.g. the Sun) can make a great radio wave transmitter:

Another way to make the field strong at 1/4-wave distance is to use a very small inductor but crank up the inductor's current to a much higher value. In this case even a very tiny coil could emit plenty of EM radiation.

Microwaves

The Sun can also produce microwaves. A microwave oven creates microwaves with a cavity magnetron: "A high-powered vacuum tube that

generates microwaves using the interaction of a stream of electrons with a magnetic field while moving past a series of open metal cavities (cavity resonators). Bunches of electrons passing by the openings to the cavities excite radio wave oscillations in the cavity." There looks to be a possible parallel with the Concave Earth system – stream of electrons is the solar wind, magnetic field is the cavity h-field, vacuum is the vacuum of space, and cavity is the Earth cavity.

Microwave ovens are basically accelerated radio wave machines that contain a concentrated radio frequency inside a chamber.

The solar wind accelerates the Sun's 6-month oscillating magnetic field (super low frequency radio wave) in the Earth cavity (chamber). The super low frequency radio wave will nearly completely travel through the crust (this could be gravity), but a little bit still gets reflected and resonates inside the Earth cavity. Together with the solar wind, these back and forth reflections (oscillations) eventually creates the cosmic microwave background (CMB) which ranges from 0.3 GHz to 630 GHz. Anything above 300 GHz is said to be in the infra-red spectrum, so 630 GHz is only just in the very edge of infra-red.

The CMB is geocentric and has been nicknamed the "axis of evil ". This is because the CMB aligns with the ecliptic plane of our heliocentric "solar system" – the CMB is the entire "universe", yet it aligns with the Earth/Sun on the equinoxes. This has been verified by three consecutive satellites (last one was in 2013) proving that this alignment is not a fluke due to faulty machinery. They say, "Why CMB patterns are oriented to the solar system is not at all understood at this time." Yes, it is understood. The Earth is concave. The ecliptic is the space between two attracting magnetic fields.

Nine frequencies of the cosmic background microwave radiation show concentrations along the ecliptic.

This is the shape of the field holding sporadic meteorites in our "solar system". It also has an ecliptic.

So, the CMB originally emanates from the Sun as super low frequency electromagnetic waves, which increase in frequency via the solar wind until the resonant 630 GHz frequency is reached."

-- http://www.wildheretic.com/where-does-cosmic-background-radiation-come-from/

Why The Big Bang Fails and a Proposed Alternative

The Big Bang theory has been the centerpiece of modern cosmology for decades despite the fact that it makes no sense whatsoever.

To give some background, here's the basic history of the Big Bang: in the earlier part of the 20th century a few astronomers supposed that measurements of the redshift of galaxies meant that the "spacetime" of Einstein's General Relativity was expanding.

Then a Catholic priest was like, "hey maybe that means if we turned the clock back far enough all of matter would be smashed into a single point for some reason." With that stroke of genius, Big Bang was born. Although most cosmologists at the time thought the Universe was eternal, eventually they learned how to drink the Big Bang Kool-Aid.

That acceptance was helped along in the 1960s when a faint light was measured to be coming from all directions in the microwave frequency

spectrum. Fyzzicists decided that this clearly was the afterglow of the Big Bang explosion.

History of the Big Bang Theory

Ever since then cosmology and astronomy have been dutifully contorted by any means necessary to make sure Big Bang theory fits any new evidence such that fyzzicists can turn around and say, "Wow, look how well the Big Bang fits the evidence! It's basically a Confirmed Fact™ now."

The way this New Age saayuhnce works is fyzzicists retroactively amend their mathematical "models" for Big Bang whenever they feel like it in order to "predict" the present. I put "predict" in quotes there because Big Bang has enough variable initial conditions which can be tweaked as necessary to fit whatever the present observations are. If you already know the answer to the "prediction," i.e., what we see presently, then it's not a prediction. Amazingly, the circular reasoning has gotten so obvious that even some of the fyzzicists are starting to recognize it.

But really these issues are secondary and have no relevance to the irrationality of the proposed explanations. Supposing fyzzicists were in fact making genuine predictions, it wouldn't make any difference. The main problem with Big Bang is that it claims that an abstract mathematical concept called "spacetime" can "expand." What could this possibly mean physically?

Literal usage of the verb "expand" requires a physical object with shape capable of doing the expanding in order to rationally understand the meaning of the term. Math concepts do not have shape and so it's meaningless to assert that they can "expand." Figurative illustrations of math concepts like as in the above serve no other purpose but to give the layman the impression that there's an actual explanation somewhere in Big Bang "theory."

"Expanding spacetime" is nothing but metaphorical speech, like saying psychedelic drugs will "expand your mind." There's no object with shape called "mind" which is literally getting bigger in size, just as there's no object called "spacetime" which is literally getting bigger in size. You need an object like a balloon or bubblegum to conceive of literal expansion! It is simply astounding that this is somehow lost on fyzzicists.

That alone destroys Big Bang theory. If your proposed explanation invokes processes and entities which cannot even be imagined, then it's impossible to rationally understand the proposal and it clearly has no hope of explaining anything. As such it doesn't matter what the evidence is because Big Bang suffers instant death before the first telescope is pointed at the sky.

Nevertheless, I still think it's pertinent to address the alleged evidence. As indicated above, the two main pieces therein are the cosmological redshift of galaxies (supposedly caused by "expanding spacetime") and the cosmic microwave background radiation.

All of those colored little specks represent galaxies surrounding us and our Milky Way galaxy located in the very center in between the blue specks. The "Zone of Avoidance" is the obscuration of our line of sight that occurs when the telescopes are pointed in the direction of the center of the Milky Way. The much greater density of stars in that direction interfere with any more distant extragalactic light sources.

Zone of Avoidance

What the 2MASS image makes clear is the trend of galaxies going from the blue end of the visible color spectrum, through green, yellow, and orange, and finally to red as the galaxies become more distant from us. This is what's known as the cosmological redshift.

The galaxies do not necessarily literally appear to us through our telescopes to be these colors. This is just a way of showing the trend of increasing redshift with increasing distance (the distance having been measured using a variety of different techniques). Most of the galaxies are red shifting, the blue colored ones are red shifting the least, the dark red ones are red shifting the most.

Redshirting is measured by looking at the frequencies of light originating in these galaxies and comparing them to the expected frequencies. The way this works is the various elements have natural resonant frequencies of light that they emit. For a particular element those frequencies form what's known as a spectral series, or an emission spectrum. Using spectroscopy, it's possible to identify the spectral signature of an element by analyzing the light originating from it.

Visible Hydrogen Emission Lines in the Balmer Series

Under the Rope Hypothesis, where it is assumed that all atoms are connected by DNA-like ropes, the electron balls of yarn forming the surface of all atoms are incessantly expanding and contracting (i.e., pumping) in a process that contemporary fyzzicists refer to as atom electron transition, or quantum jumping. The pumping of the electron shell torques the ends of all the ropes extending from an atom, like as if you were to twist the end of a straightened and taut clothesline, and consequently the ropes twist in situ. The twisting of the ropes is the phenomenon known as light.

Gravity, Light, Electricity, and Magnetism Under the Rope Hypothesis: Alternating EM Fields (Mathematics) vs. the Rope (Physics): Frequency, Wavelength, and Amplitude

A rope naturally satisfies the frequency, wavelength, and amplitude properties of light. In the case of spectral lines, the atoms comprising an element have multiple layers of electron shells (comprised of gazillions of threads) pulsating at different pump speeds, and these speeds correspond with the various rope wavelengths/frequencies seen in an emission spectrum.

For cosmological redshift fyzzicists use the emission spectrum of hydrogen since it is by far the most abundant element in the Universe. They compare the emission spectrum they see through the telescope to the one we normally see on Earth, and this allows them to calculate the degree of red shifting, i.e., how much longer the wavelengths seen through the telescope are in comparison to the regular wavelengths. "z" in the redshift key of the 2MASS image up above is the difference in wavelength divided by the regular wavelength.

Now here is where things get a little silly fyzzicists assert that the cosmological red shift isn't caused by the greater distance but by allegedly greater recessional velocities the farther away the galaxies are from us. In other words, as the galaxies go from blue to red, the red shift isn't because they are farther away, but because it just so happens that the farther away they are the faster they are receding from us.

The fyzzicists claim that empty space is an object like bubble gum which can "expand," and it's "expanding" into…er…uhhmm….well…you're not actually allowed to ask into what. You'll be told that is a "nonsense question,"… kind of like their nonsense theory.

The Expanding Universe

Fyzzicists profess that just as if you were to tape pennies to a balloon and blow it up such that the distance between all the pennies is growing, the

Universe is like some kind of bubble that is getting bigger (only it's not like a balloon or a bubble at all because those are objects as opposed to the abstract mathematical concepts that fyzzicists confuse with reality). The farther a galaxy is from us the faster "space itself" is "growing," and thus the greater the degree of the so-called cosmological redshift.

Note: this is a different mechanism from the Doppler Effect, which happens with light in a similar way that it happens with sound. Just as the ambulance has a higher pitch when it comes toward you and a lower pitch when it drives away, a galaxy moving toward us is blue shifted, whereas one moving away is redshifted. The effects of cosmological redshift and doppler shift combine (along with some other effects) to produce the observed shifting. Because the overall trend is supposedly that the Universe is expanding, most galaxies appear redshifted. In cases where a galaxy happens to be moving toward us, if the doppler blueshift is significant enough it can overcome the effect of the cosmological redshift and produce a net blueshift.

Doppler Shift

This may sound awkward seeing as how fyzzicists seem to be claiming that the expanding Universe forces most galaxies to move away from us in a scenario that appears to be indistinguishable from the Doppler Effect, but what they're "really" saying is that "space itself" is "expanding." In that sense the galaxies aren't moving away from us like in the doppler shift, the "spacetime" between the galaxies is "growing."

Somehow this "stretches" the "wavelength" of a photon, which is also awkward because when the photon strikes a detector it's a zero-dimensional size less shapeless mathematical abstraction. How can a 0D "object" with no physical extent have a "wavelength?" Or exist at all for that matter? There's simply no way to make sense out of these absurdities.

The Ever Elusive Zero-Dimensional, Size less, Shapeless Photon

At any rate, as stated above the link between "expanding spacetime" and Big Bang is that if you turned the clock backwards the Universe would shrink. Turn it back far enough and eventually all of matter smashes into a tiny, dimpled pea for some reason. Why couldn't the Universe bubble oscillate back and forth forever instead? Because fyzzicists say so!

Big Bang Singularity Just After She Blows

One of the more obvious questions here is why would fyzzicists opt for an interpretation of cosmological redshift that entails an expanding Universe? What if light just becomes increasingly redshifted the farther it travels to get to us? Couldn't we be looking at a more or less steady state Universe where cosmological redshift is purely a factor of distance? Indeed, this has been proposed before, the phenomenon is known as tired light.

And you know what fyzzicists' response is? They can't think of any mechanism that would cause light to become redshifted as a result of distance traveled for a photon, therefore we have no choice but to go with "expanding spacetime!"

Hmm, well thankfully the Rope Hypothesis provides a potential mechanism for tired light. Intergalactic ropes binding atoms which are millions or billions of light years away from one another have longer rope wavelengths for the same atomic pump speed applied to a longer rope. Perhaps it's similar to how a guitar string resonates at a higher note when you place your finger somewhere along the fretboard. A hydrogen atom's

pumping "plucks," i.e., torques, the end of a rope, and the longer the rope the longer the wavelength for any particular emission line. Unlike the guitar string analogy, however, with the subatomic rope the effect of tired light only starts to become apparent at astronomical distances.

This explanation is nice because it knocks out two birds with one stone. As stated at the beginning, the other piece of evidence allegedly in favor of Big Bang is the cosmic microwave background radiation. There's apparently a faint signal coming from all directions in the microwave frequency range. Fyzzicists interpret this as the "afterglow" of the Big Bang explosion.

Cosmic Microwave Background Radiation

Several hundred thousand years after all of matter magically appeared from nothing, the Universe bubble cooled down enough for plasma to turn into hydrogen atoms, and this caused the primordial photons to decouple from matter and scatter off of the newly minted electrons (this is when God said, "Let there be light!"). Because the temperature of the Universe bubble was mostly uniform, the microwave background we see today (comprised of these primordial photons) forms what's known as a blackbody curve.

A blackbody curve plots light intensity (effective amplitude) on the Y-axis and frequency on the X-axis, and the light being measured/plotted is caused by the heat motion of atoms within an object of more or less uniform temperature. These atoms are producing what's known as thermal radiation. An object placed under increasing heat will glow red, then orange, and so on, towards the blue end of the color spectrum.

Blackbody Curves: Intensity vs. Frequency for Each Temperature Curve

Under the Rope Hypothesis, whereas electron shell pumping is one mechanism by which the ropes are torqued, the atoms in an object also incessantly and chaotically move around in the three degrees of freedom, sliding back and forth in all directions along the interconnecting ropes within the phenomenon known as heat. This torques the ropes in the direction of motion and generates rope torsion, i.e., light, in the form of thermal radiation. The greater the temperature of the object (meaning the faster the atoms are moving), the higher the rope frequencies are that result, just as a faster pump speed results in a higher rope frequency.

If you analyze the frequencies of light emitted by an object like the Sun and plot them along with the intensity at which each frequency is emitted, you'll end up with a blackbody curve. The Sun of course is fairly toasty and so the atomic heat motion, along with the atomic pumping, contribute to the range of frequencies at which the ropes extending from the Sun are torquing. Given that there's many frequencies occurring simultaneously the Sun appears white (or sometimes yellow/orange/red depending on how it's interacting with Earth's atmosphere). Interestingly, the frequency most intensely generated by the Sun is that of green.

Blackbody Curves of the Sun and Earth

The Earth also has a blackbody curve although it peaks at a lower frequency than the Sun because the Earth has a much cooler temperature. In fact, even you act as a blackbody which emits thermal radiation that peaks in the infrared range, that's how government drones can dispatch you with extreme prejudice even if you're hiding in the dark! Sort of like "Predator" with Arnold Schwarzenegger.

Hasta La Vista

In any case, the cosmic microwave background radiation allegedly generates a blackbody curve due to the uniform temperature distribution that was present a few hundred thousand years after the bang. The primordial photons from this time which continue to wander around the cosmos still bear a blackbody style distribution of frequencies resulting from the thermal radiation in the early Universe, and those frequencies peak in the microwave spectrum because the "wavelengths" of the primordial photons have long since been "stretched" by the continually "expanding spacetime."

Amazingly, the blackbody curve of the CMBR is the most perfect one ever measured! Fyzzicists love to brag about this. In fact, it's so close to an ideal blackbody, specifically with root-mean-square deviations not greater than 50 parts per million of the peak brightness of the CMBR spectrum, that it almost looks like made up horseshit.

Incredible! Near Perfect Blackbody Measured By COBE

You see, following the Challenger disaster the gubmint space program needed a comeback, and in 1987 NASA administrator Jim Fletcher declared that COBE (the satellite used to measure the CMBR) was the centerpiece of the agency's recovery. The fyzz whizzes were under enormous pressure to deliver, and boy did they come through big!

Pierre-Marie Robitaille, a professor of radiology at Ohio State University, and an expert when it comes to instrumentation and signal analysis (he conceived and directed the construction of the world's first 8 Tesla Magnetic Resonance Imaging (MRI) scanner, not exactly a lightweight), leveled what appears to be some seriously damning criticisms against NASA's COBE and also WMAP space probes which were used to measure the CMBR.

Robitaille argues that the fyzzicists weren't picking up the faint afterglow of the Big Bang but a microwave signal originating in the Earth's oceans which was diffracting over the RF shield and leaking into the sensitive detection horn. That would certainly explain why earthshine never generated interference throughout the history of measuring the CMBR: The Earth itself may have been the primary source of the supposed CMBR signal! This would also help explain the near perfect blackbody curve.

Muh CMBR

Whether or not Robitaille's analysis is accurate, the practically ideal blackbody curve for the CMBR presented as a triumph of modern science sure looks suspiciously like a government agency that badly needed a victory in the eyes of the public. There are no other examples in nature of actual blackbody curves that I'm aware of which look like COBE's. Here, give me a few gazillion tax dollars and I'll pull that curve out of my arse too!

That all being said, I wouldn't be surprised if there is indeed a genuine microwave background signal. If we are to entertain the Rope Hypothesis mechanism for tired light, then we should expect that at far enough distances intergalactic ropes extend to the point where their frequencies fall off beyond the infrared and into the microwave spectrum. Whether or not this might produce an apparent blackbody curve, it would certainly explain a faint microwave signal seemingly coming from all directions: the source would be all the stars and galaxies which are tremendously far away and **surround what we know as the visible Universe.**

EM Spectrum: Visible Light from Violet To Red Then Infrared and Microwave

I took the 2MASS Galaxy Catalog and shrunk it down to generate the redshift map on the right which is surrounded by a layer of infrared and then microwave spectrum redshifted light originating from super distant galaxies. The mock-up is not supposed to be to any scale, it's just to demonstrate how tired light can explain both the cosmological redshift and the CMBR in one fell swoop. There's no need to invoke the irrational "expanding spacetime" or exploding dimpled pea of the Big Bang.

While there's much more that can be said on these topics, for now I want to finish up by briefly outlining an alternative cosmology if we are prepared to toss Big Bang in the loony bin where I think it belongs.

Under the Rope Hypothesis we return to the eternal Universe. All matter and motion are eternal, there never was any beginning nor will there ever be any end. Underlying the Rope Hypothesis configuration and weaving into every single rope and atom is one single continuous loop of Thread. If one could untangle all the ropes and atoms, completely picking apart the Gordian cosmos, the result would look like the image below.

Unlike all the above hydrogen atom scale objects, such as galaxies, stars, planets, and life forms, the Thread did not form at any point, nor will it ever come undone. Likewise, without a beginning the Thread cannot be said to have any age.

The concept of age is predicated on the concept of time, and time is a comparison between a periodic motion and another motion, like as if I count the ticks on my watch in relation to someone running the 10-meter dash. I can't think of an example of time which doesn't resolve to a comparison between a bare minimum of two motions. Even the psychological perception of the passage of time resolves to a comparison between neural processes and another motion.

Age then is the concept of time applied to how many counts of a periodic motion transpired from the moment of the formation of a composite object, like a human being, to the present.

The Thread was never created or assembled and therefore it is both ageless and timeless. Although causality and our memory give us the strong impression that the past somehow exists, all there really is in the Rope Hypothesis Universe is one present moment in which all of matter and life are bound into a single cosmic web.

So, why is the Thread here at all, and why this specific interconnected architecture? The rational scientific method begins by assuming existence. In the case of the Rope Hypothesis, the Thread and its motion are the ultimate assumptions, and therefore they cannot themselves be explained since they are used to explain everything else.

Perhaps that's not very satisfying as an answer but matter and motion being eternal, whether that's in the Rope Hypothesis proposal or some other theory, is the only rational possibility because the other option, something coming from nothing, inevitably invokes a process whose mechanism cannot be shown in a movie or rationally understood.

Beyond Big Bang failing on account of the irrationality of treating "spacetime" as if it were an object when it's an abstract mathematical concept by definition (this being an example of the **Fallacy of Reification**, a.k.a the **Fallacy of Hypostatization** or the **Fallacy of Misplaced Concreteness**), insofar as some versions of the proposal allege the possibility of something coming from nothing, here too Big Bang fails to qualify as an actual explanation because such a mechanism cannot be imagined.

Consequently, the Big Bang "theory" is not a valid theory of science, nor does it enlighten us as to any possible explanation for the two main lines of evidence, the cosmological redshift and the CMBR, which are supposed to act as its veritable "confirmation."

The fyzzicists will never let go of this ridiculous idea. There is no possible way to reform the system or "change physics from the inside."

In the 21st century it is high time that independent thinkers break all ties to academia and begin forming our own parallel system of scientific development and achievement."

-- https://practicallawandjustice.liberty.me/big-bullshit-why-big-bang-fails-and-a-proposed-alternative/

Chapter 3

Quantum Gravity From The Heliocentric Perspective

Quantum Graviton Theory: How the Bits of Quantum Gravity Can Buzz?

If gravity plays by the rules of quantum mechanics, particles called gravitons should gingerly jostle ordinary objects.

Many physicists assume that gravitons exist, but few think that we will ever see them. These hypothetical elementary particles are a cornerstone of theories of quantum gravity, which seek to unify Albert Einstein's general theory of relativity with quantum mechanics. But they are notoriously hard — perhaps impossible — to observe in nature.

The world of gravitons only becomes apparent when you zoom in to the fabric of space-time at the smallest possible scales, which requires a device that can harness truly extreme amounts of energy. Unfortunately, any measuring device capable of directly probing down to this "Planck length" would necessarily be so massive that it would collapse into a black hole. "It appears that Nature conspires to forbid any measurement of distance with error smaller than the Planck length," said Freeman Dyson, the celebrated theoretical physicist, in a 2013 talk presenting a back-of-the-envelope calculation of this limit.

And so gravitons, according to conventional thinking, might only reveal themselves in the universe's most extreme places: around the time of the Big Bang, or in the heart of black holes. "The problem with black holes is that they're black, and so nothing comes out," said Daniel Holz, an astrophysicist at the University of Chicago. "And the quantum gravity stuff is happening right at the center of this — so that's too bad."

But recently published papers challenge this view, suggesting that gravitons may create observable "noise" in gravitational wave detectors such as LIGO, the Laser Interferometer Gravitational-Wave Observatory. "We've found that the quantum fuzziness of space-time is imprinted on matter as a

kind of jitter," said Maulik Parikh, a cosmologist at Arizona State University and a co-author of one of the papers.

And while it's still unclear if existing or even future gravitational wave observatories have the sensitivity needed to detect this noise, these calculations have made the near-impossible at least plausible. By considering how gravitons interact with a detector en masse, they have given a solid theoretical footing to the idea of graviton noise — and taken physicists one step closer to an experimental confirmation that deep down, gravity plays by the rules of quantum mechanics.

The Jitter of the Wave

Dyson's 2013 calculation convinced many people that gravitational wave detectors were, at best, impractical probes for learning about quantum gravity.

"There's a kind of default consensus that it's a waste of time to think about quantum effects and gravitational radiation," said Frank Wilczek, a Nobel Prize-winning physicist at the Massachusetts Institute of Technology who was a co-author with Parikh on the new paper. Indeed, neither Wilczek, Parikh nor George Zahariade, a cosmologist at Arizona State and the third co-author, took the possibility seriously until after the 2015 discovery of gravitational waves by LIGO. "There's nothing like actual experimental results to focus the attention," said Wilczek.

Gravitons are thought to carry the force of gravity in a way that's similar to how photons carry the electromagnetic force. Just as light rays can be pictured as a well-behaved collection of photons, gravitational waves — ripples in space-time created by violent cosmic processes — are thought to be made up of gravitons. With this in mind, the authors asked whether gravitational wave detectors are, in principle, sensitive enough to see gravitons. "That's like asking: How can a surfer on a wave tell just from the motion that the wave is made up of droplets of water?" said Parikh.

Unlike Dyson, whose broad-brush calculation focused on a single graviton, they considered the effects of many gravitons. "We were always inspired by Brownian motion," said Parikh, referring to the random jiggle and shake of microscopic particles in a fluid. Einstein used Brownian motion to deduce the existence of atoms, which bombard the microscopic particles. In the same way, the collective behavior of many gravitons might subtly reshape a gravitational wave.

Gravitational wave detectors can, at their simplest, be thought of as two masses separated by some distance. When a gravitational wave passes by, this distance will increase and decrease as the wave stretches and squashes the space between the masses. Add gravitons into the mix, however, and you add a new motion on top of the usual ripples in space-time. As the detector absorbs and emits gravitons, the masses randomly jitter. This is graviton noise. How big the jitter is, and thus whether it can be detected, ultimately depends on the type of gravitational wave hitting the detector.

Gravitational fields exist in different "quantum states," depending on how they were created. Most often, a gravitational wave is produced in a "coherent state," which is akin to ripples on a pond. Detectors like LIGO are tuned to search for these conventional gravitational waves, which are emitted from black holes and neutron stars as they spiral around each other and collide.

LISA Pathfinder Spacecraft

Next-generation gravitational wave detectors could be made of fleets of spacecraft. The LISA Pathfinder mission, shown here being prepared for its December 2015 launch, successfully tested the technologies that would be needed for these next-gen detectors.

Even coherent gravitational waves produce graviton noise, but — as Dyson also found — it's far too small to ever measure. This is because the jitter created as the detector absorbs gravitons is "exquisitely balanced" with

the jitter created when it emits gravitons, said Wilczek, who had hoped that their calculation would lead to a bigger noise for coherent states. "It was a little disappointing," he said.

Undeterred, Parikh, Wilczek and Zahariade examined several other types of gravitational waves that Dyson did not consider. They found that one quantum state in particular, called a squeezed state, produces a much more pronounced graviton noise. In fact, Parikh, Wilczek and Zahariade found that the noise increases exponentially the more the gravitons are squeezed.

Their theoretical exploration suggested — against prevailing wisdom — that graviton noise is in principle observable. Moreover, detecting this noise would tell physicists about the exotic sources that might create squeezed gravitational waves. "They are thinking about it in a very serious way, and they're approaching it in a precise language," said Erik Verlinde, a theoretical physicist at the University of Amsterdam.

"We always had this image that gravitons would bombard detectors in some way, and so there would be a little bit of jitter," said Parikh. "But," Zahariade added, "when we understood how this graviton noise term arises mathematically, it was a beautiful moment."

The calculations were worked out over three years and are summarized in a recent paper. The paper describing the complete set of calculations is currently under peer review.

Yet while squeezed light is routinely made in the lab — including at LIGO — it's still unknown whether squeezed gravitational waves exist. Wilczek suspects that the final stages of black hole mergers, where gravitational fields are very strong and changing rapidly, could produce this squeezing effect. Inflation — a period in the early universe when space-time expanded very rapidly — could also lead to squeezing. The authors now plan

to build precise models of these cosmological events and the gravitational waves they emit.

"This opens the door to very difficult calculations that are going to be a challenge to carry through to the end," said Wilczek. "But the good news is that it gets really interesting and potentially realistic as an experimental target."

A Hologram Shake

Rather than looking to quantum sources in the cosmos, other physicists hope to see graviton noise directly in the bubbling vacuum of space-time, where particles fleetingly pop into existence and then disappear. As they appear, these virtual particles cause space-time to gently warp around them, creating random fluctuations known as space-time foam.

This quantum world might seem inaccessible to experiment. But it's not — if the universe obeys the "holographic principle," in which the fabric of space-time emerges in the same way that a 3D hologram pops out of a 2D pattern. If the holographic principle is true, quantum particles like the graviton live on the lower-dimensional surface and encode the familiar force of gravity in higher-dimensional space-time.

In such a scenario, the effects of quantum gravity can be amplified into the everyday world of experiments like LIGO. Recent work by Verlinde and Kathryn Zurek, a theoretical physicist at the California Institute of Technology, proposes using LIGO or another sensitive interferometer to observe the bubbling vacuum that surrounds the instrument.

Kathryn Zurek emphasizes that it's important for theoretical physicists to think outside the narrow range of what is conventional and acceptable, especially when unorthodox ideas can be connected to experiment. "The principles of quantum mechanics are kind of crazy when you think about it,"

she said, "but it's based on a postulate that gives rise to consequences, and so you can go and see if it describes nature."

Caltech

In a holographic universe, the interferometer sits in higher-dimensional space-time, which is closely wrapped in a lower-dimensional quantum surface. Adding up the tiny fluctuations across the surface creates a noise that is big enough to be detected by the interferometer. "We've shown that the effects due to quantum gravity are not just determined by the Planck scale, but also by [the interferometer's] scale," said Verlinde.

If their assumptions about the holographic principle hold true, graviton noise will become an experimental target for LIGO, or even for a tabletop experiment. In 2015 at the Fermi National Accelerator Laboratory, a tabletop experiment called the Holometer looked for evidence that the universe is holographic — and was found wanting. "The theoretical ideas at that time were very primitive," said Verlinde, noting that the calculations in his paper with Zurek are grounded on the more in-depth holographic methods developed since then. If the calculations enable researchers to precisely predict what this graviton noise looks like, he thinks their odds of discovery are better — although still rather unlikely.

Zurek and Verlinde's approach will only work if our universe is holographic — a conjecture that is far from established. Describing their attitude as "more of a wild west mentality," Zurek said, "It's high risk and unlikely to succeed, but what the heck, we don't understand quantum gravity."

Uncharted Territory

By contrast, Parikh, Wilczek and Zahariade's calculation is built on physics that few would disagree with. "We did a very conservative calculation,

which is almost certainly correct," said Parikh. "It essentially just assumes there exists something called the graviton and that gravity can be quantized."

But the trio acknowledge that more theoretical legwork must be done before it's known whether current or planned gravitational wave detectors can discover graviton noise. "It would require several lucky breaks," said Parikh. Not only must the universe harbor exotic sources that create squeezed gravitational waves, but the graviton noise must be distinguishable from the many other sources of noise that LIGO is already subject to.

"So far, LIGO hasn't shown any signs of physics that breaks with the predictions of Einstein's general relativity," said Holz, who is a member of the LIGO collaboration. "That's where you start: General relativity is amazing." Still, he acknowledges that gravitational wave detectors are our best hope for making new fundamental discoveries about the universe, because the terrain is "completely uncharted."

Wilczek argues that if researchers develop an understanding of what graviton noise might look like, gravitational wave detectors can be adjusted to confirm the chances of finding it. "Naturally, people have been focusing on trying to fish out signals, and not worrying about the interesting properties of the noise," said Wilczek. "But if you have that in mind, you would maybe design something different." (Holz clarified that LIGO researchers have already studied some possible cosmic noise signals.)

Despite the challenges ahead, Wilczek said he is "guardedly optimistic" that their work will lead to predictions that can be probed experimentally. In any case, he hopes the paper will spur other theorists to study graviton noise.

"Fundamental physics is a hard business. You can famously write the whole thing on a T-shirt, and it's hard to make additions or changes to that,"

Wilczek said. “I don’t see how this is going to lead there directly, but it opens a new window on the world.

“And then we’ll see what we see.”

https://www.quantamagazine.org/gravitons-revealed-in-the-noise-of-gravitational-waves-20200723

Gravity as The Warping of Space Time: The War Between Newtonian Mechanics and Einsteinian Nonsense

According to Einstein, living in the universe is like living on a huge piece of soft elastic rubber. Space-time is a medium that has shape and form. Objects within this medium can flex and twist it. Every object in the universe pulls on the space around it, drawing the fabric of space-time toward its center. The more massive the object, the more it pulls. The amount of pull exerted by an object on the universal fabric is its gravitational force. So the apple falls to Earth because Earth has warped space-time in such a way that the apple must move toward Earth's center. More massive planets create a deeper warp, imparting a faster acceleration to objects that wander past.

The physicist John Wheeler captured these odd notions perfectly:

“Matter tells space how to curve, and curved space tells matter how to move.”

One hundred years ago in November 1915, Albert Einstein presented to the Prussian Academy of Sciences his new theory of general relativity. It is fair to say the theory turned out to be a great success.

General relativity was built on Einstein's special relativity, which provided solutions to some of the greatest puzzles of the 19th century theoretical physics.

So in order to grasp the meaning and significance of general relativity, it is worth reflecting on the state of physics in the 19th century to see how Einstein came to realize that space, time and geometry are not absolute but depend on the physical environment.

The Beauty of Invariance

In the 17th century, Isaac Newton developed a set of equations that described the physical properties of the world around us. These equations were very successful, from a description of the flight of a cannonball, to the motion of the planets.

They also had a very appealing property: all observers, regardless of whether they are moving or not – i.e. regardless of which "inertial frame" they are in – are equivalent when it comes to their description of the world around them. So two individuals moving in different directions would see events unfold in the same way.

Even though formally these individuals would see things in a different way – one might say that things move from left to right, whereas the other might say they move from right to left – still the fundamental description of the unfolding events would remain the same, and the laws of physics derived by these individuals would have literally the same form.

But in the 19th century, people started noticing that not everything plays accordingly to this rule.

Problems With Electromagnetism

The 19th century was a time of extensive study of the phenomena of electricity, magnetism and light. In 1865 James Clerk Maxwell published a set

of equations that combined all these phenomena into a single phenomenon of "electromagnetism".

Soon after Maxwell's discovery, people realized that there is something strange when it comes to his equations. Their form changes when we move from one inertial frame to another. So an individual who is not moving can observe distinctively different physical phenomena than a person who is moving.

All the beauty of invariance and irrelevance of observers that we had got used to in Newtonian physics was gone. It now looked like some frames were preferable to others when it came to describing events in nature.

Then, at the turn of the 20th century, a new mathematical transformation was discovered that could preserve the structure of Maxwell's equations when moving from one frame to another. Although many people contributed to this discovery, we now refer to it as the "Lorentz transformation".

The Lorentz transformation was different from the standard transformation of inertial frames that had been used in the Newtonian physics. In Newtonian physics, length and time are absolute, so the length of an object in one frame is the same as the length of that object in another frame. Also, time passes in the same way in one frame as in the other frame.

However, if taken literally, the Lorentz transformation implies that time and length do actually change, depending on which frame of reference you are in.

Principle of Relativity

This got Einstein wondering whether the transformation that preserved the structure of Maxwell's equations was merely a mathematical trick or whether there was something fundamental about it. He wondered

whether time and space were absolute, or whether the principle of invariance of the laws of physics should be paramount.

In 1905, Einstein decided that it is the invariance of the laws of physics that should have the highest status, and postulated the principle of relativity: that all inertial frames are equivalent, the observer's motion (with constant velocity) is irrelevant, and that all laws of physics should have the same form in all inertial frames.

When combined with electromagnetism, this principle would require that the transformation from one inertial frame to another must have a structure of the Lorentz transformation, meaning that time and space are no longer absolute and change their properties when changing from one inertial frame to another.

What About Gravity?

In 1907 Einstein realized that his theory was not complete. The principle of relativity was only applicable to observers moving with a constant velocity. It also did not fit with the Newtonian description of gravity.

Einstein, being a patent officer, did not have access to laboratory equipment. To compensate, he had to engage himself in thought experiments. He considered various scenarios in his head and worked through them step by step.

These thought experiments showed to him that gravity is not different from acceleration. So standing stationary on the Earth feels just the same as standing in a rocket ship accelerating at a constant 1G.

It also showed that the accelerated observer would observe that fundamental geometrical properties change. For example, that the number π (a mathematical constant) could no longer be defined as a ratio of a circle's circumference to its diameter.

So it was not just time and space that lost their absolute meaning, but Einstein realized that also geometry itself was not absolute and could be susceptible to physical conditions.

The Road To General Relativity

All this reasoning convinced Einstein that the geometry of the spacetime and the physical processes that take place in the spacetime, are related to each other and that one can affect the other.

It also led to a striking conclusion: what we perceive as gravity is just a consequence of the motion through the spacetime. The larger the curvature of the spacetime the stronger gravity is.

Experiment with falling objects. In the 17th century Newton concluded that objects fall because they are pulled by Earth's gravity. Einstein's interpretation was that these objects do not fall. According to Einstein, these objects and Earth just freely move in a curved spacetime and this curvature is induced by mass and energy of these objects.

It took Einstein eight years to find the relation between the geometry of spacetime and physics.

The equations that he presented in 1915 not only led to a completely different interpretation of events around us but also provided an explanation for some baffling or yet to be discovered phenomena: from the anomalous orbit of the planet Mercury, through the bending of light by the Sun's gravity, to predicting the existence of black holes and expanding universe.

It was a bumpy road from Newtonian physics to special and then general relativity. But each step, driven by Einstein's insight, drove inexorably towards a picture of the universe that persists to this day.

https://theconversation.com/from-newton-to-einstein-the-origins-of-general-relativity-50013

Newtonian Physics vs. Special Relativity

Both Albert Einstein and Sir Issac Newton are regarded as the forefathers of physics, but both held different theories that are fundamentally different from the other. So in the grand scheme of things.. who was more correct… Einstein or Newton.

Here, we battle it out, but ultimately, the choice is up to you!

So let's start with Newton! In the world of Newtonian physics, everything looks the same to everyone else in the universe, irrespective of your location and speed. I don't know about the rest of you, but this seems like a very logical concept, probably because this is how we all view everyday life. When I used to play cricket, I had no doubt that my view of the cricket ball hurtling through the air looked the same as someone driving down the road watching the ball (points of view taken into consideration of course). What I'm getting at here is that they didn't see the ball stretching, moving slowly, and blue shifting.

Really then, the world in Newtonian physics makes sense to us in everyday life. I know if I was to tell a group of 11 year old school children that a 1 meter ruler actually appear to be a different length when I'm holding it versus when I'm running with it, they're likely to think I'm kidding (or crazy). Why? Because we can't show it. If I did that little experiment with the students, it would still look exactly the same size. And considering that it's only something like .000000000000000088.. meters longer to the outside observer, I can't blame anyone for not believing me. Even while traveling on an aeroplane it would only be .00000000000029 meters longer! The point I'm making here is that Newton making the assumption that the universe is exactly the same for everyone else, irrespective of location or speed, was a completely logical assumption. So much so that suggesting anything more at

the time would have been completely dismissed–they would have thought he was crazy.

This is where Einstein enters the picture… at the right place, but most importantly, at the right time. There were many scientists with many ideas at the time, incomplete ideas. Einstein managed to unify many different theories into several papers, five of which were published in the same year. This is not to take away from his brilliance, it's just the nature of science. Einstein managed to combine many different ideas (that were not his own) with an idea of his own and, in so doing, completely change the world.

This is no small task.

A good example of this is the Theories of Relativity and the Lorentz Transformation. Although, in many cases, Einstein gets credit for this, it was first published by Joseph Larmor in 1897, proposed by Hendrik Lorentz in 1895, and eventually modified by Henri Poincare in 1905 but accredited to Lorentz by Poincare. But although Einstein may not have come up with the equation, he did tie it all together in his Special Relativity paper.

Unlike in a Newtonian world, the universe is not quite a constant, for the most part anyway. Taking a look at the Lorentz Transformation using time as our variable:

$$t' = t / \sqrt{1 - ((v^2)/(c^2))}$$

In this equation we see that Time and Velocity are variables because neither of them have a constant physical value, like the speed of light "c". Here we can see that the speed of light MUST be a constant in the universe. This agrees with Newtonian physics, the speed of light being a constant, with time and length being different, this bit obviously doesn't agree with Newton.

So in the end in the battle between Newton and Einstein, who is right? In everyday life, they both are. The speeds at which life goes by are so slow that it has only been in recent history that we have been able to detect the

differences. Newton viewed space-time as being flat, unchanging and very boring, but that is not at all the case in Einstein's world. To Einstein, space-time is very dynamic, changing depending gravity and velocity.

https://futurism.com/newtonian-physics-vs-special-realtivity

The Solar Eclipse That Allegedly Confirmed Albert Einstein Right

Albert Einstein's name is synonymous with genius today, but a hundred years ago, most scientists scoffed at his theories. It took a total solar eclipse to change their minds.

When Einstein proposed his theory of general relativity in 1915, he was throwing out a direct challenge to Isaac Newton, whose theory of gravity had defined our understanding of the universe since 1687. Einstein argued that Newton was wrong about what the force of gravity actually moves. According to Newton, space is just a fixed background, against which objects' gravity pushes and pulls other objects in predictable ways. But according to Einstein, space and time together form a four-dimensional thing called spacetime, and objects' gravity actually warps spacetime itself. It's the warping of spacetime that causes objects' paths to curve in the presence of gravity.

Technically, there was a simple way to test this. Both Newton's and Einstein's theories predicted that light would bend near a gravitational field, like the Sun's. Newton called for about half as much bending as Einstein, but the angles involved were very small, so the difference was still too subtle to test on Earth. Without an experiment to determine who was right about gravity, most scientists continued to believe Newton and dismissed Einstein. But that was about to change.

There was one very important figure among the few scientists who paid young Einstein and his wild theories much mind: no less than the

Astronomer Royal of Britain, Sir Frank Watson Dyson. His colleague, astronomer Sir Arthur Eddington, also took an interest in general relativity, and in 1917 the two devised a way to resolve the debate.

During the solar eclipse of May 29, 1919, the Sun would pass between Earth and the Hyades Star Cluster, a bright, spherical open cluster of stars about 153 light years away in the constellation Taurus. Normally, those stars wouldn't be visible in daylight, but the darkness of the eclipse would allow astronomers to observe them for about six minutes - and to reach Earthly viewers, their light would have to pass through the Sun's gravitational field. The bending of the stars' light would show up on Earth as a slight change in their usual position in the sky.

Today, astronomers use this method, called gravitational lensing, to study dark matter, the formation of the universe, and search for extrasolar planets. Sometimes it also produces really fantastic images, like this one.

In 1919, Eddington and his colleagues hoped to use the method to either vindicate or discredit Einstein and his theory of general relativity. Two teams of astronomers packed up and set out on expeditions to distant lands to observe the solar eclipse. One team, led by Eddington himself, traveled to the island of Príncipe, now part of the country of São Tomé and Príncipe, off the west coast of Africa, while the other went to the city of Sobral, near the northeastern coast of Brazil. Both teams measured the position of the stars during the eclipse. In the end, the data matched exactly the way Einstein's theory had predicted light should curve as it passed through the Sun's gravitational field.

Einstein became an instant celebrity, a status which lasted until his death in 1955, and it all began with a moment in the Sun.

--https://www.forbes.com/sites/kionasmith/2017/08/19/the-solar-eclipse-that-confirmd-albert-einstein-right/?sh=5f624a976869

Halley's Comet Returning?

Halley's Comet periodic return to Earth's atmosphere (Claimed to be the inner Solar System) has been observed and recorded by astronomers around the world since at least 240 BC. But it was not until 1705 that the English astronomer Edmond Halley understood that these appearances were reappearances of the same comet. As a result of this discovery, the comet is now named after Halley.

Returning comets, year after year, are hard to explain if we are also zooming through the universe for billions of miles a year and trillions of miles a century. This, alone, destroys The Heliocentric Model. Most comets have a period between 20 and 200 years, and are thought to return because of orbital Gravity. And yet, they do not orbit specific celestial bodies, and so this entire story is absurd.

Computation of Orbit

Halley was the first comet to be recognized as periodic. Until the Renaissance, the philosophical consensus on the nature of comets, promoted by Aristotle, was that they were disturbances in Earth's atmosphere. This idea was disconfirmed in 1577 by Tycho Brahe, who used parallax measurements to show that comets must lie beyond the Moon. Many were still unconvinced that comets orbited the Sun, and assumed instead that they must follow straight paths through the Solar System.

Calculating the Earth's Alleged Curvature

You Never Learn This Equation in School…Why?

Sure, you learn about Mass-Energy Equivalence in Special Relativity in school. Energy equals Mass times the Speed of Light squared (E=MC^2), which amounts to nothing more than unconfirmed, mumbo jumbo nonsense about mass and energy being one and the same at a certain velocity, which nobody has ever seen or experienced. On the most basic level, the equation says that energy and mass (matter) are interchangeable; they are different forms of the same thing.

Upon closer scrutiny, you can easily discover how all of Special Relativity was first put forth in mystical Kabbalistic text long, long before Judaic shill, plagiarist, and fraud, Albert Einstein, came onto the scene. And as such, Einstein's plagiarism is nothing more than repackaged mysticism and wild unconfirmed conjecture and wishful thinking. Einstein did never had any confirmation for his theories. All he had were thought experiments that have never been verified, as well as equations that go nowhere but to wild assumptions and blind alleyways ending in a cul de sac of nonsensical paradox, exactly how ancient Kabbalistic mysticism was designed to be. The more complex and mysterious the idea, the more the Kabbalist, such as Einstein, asserted their truth and validity to the physical work. Nevertheless, it all amounts to esoteric rubbish and repackaged mysticism sold as science.

But you never learn about the equation for the curvature of the Earth, do you, which is absolutely empirically verifiable and practical science. Why? Would not the curvature of the Earth be one of the more important things

for everyone to examine and think about since we all live on Earth? We are constantly learning about how the Earth works and descriptions of every part of The Heliocentric Model via Earth Science Classes, but the curvature the Earth equation is conspicuously missing from the academic ledger and curriculum record. No school teaches it or even talks about it. If this does not throw a red flag up for you, nothing will.

So let's look at the Earth's curvature equation, since the academic institutions fail to. If the Earth is 25,000 miles in circumference then the curvature would be 8 inches per mile. Trigonometry is employed to calculate this curvature. One must know the basics of applying Sine, Cosine, and Tangent to do this. The following is a refresher on that:

Sine, Cosine, and Tangent

The Right Triangle

Sine, Cosine and Tangent are the main functions used in Trigonometry and are based on a Right-Angled Triangle.

Before getting stuck into the functions, it helps to give a **name** to each side of a right triangle:

- "Opposite" is opposite to the angle θ
- "Adjacent" is adjacent (next to) to the angle θ
- "Hypotenuse" is the long one

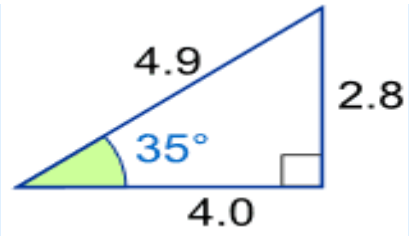
Sine, **Cosine** and **Tangent** (often shortened to **sin**, **cos** and **tan**) are each a **ratio of sides** of a right-angled triangle:

For a given angle ***θ*** each ratio stays the same
no matter how big or small the triangle is

To calculate them:

Divide the length of one side by another side

Example: What is the sine of 35°?



Using this triangle (lengths are only to one decimal place):

sin (35°) = Opposite **Hypotenuse**
= 2.8**4.9**
= **0.57...**

cos (35°) = Adjacent **Hypotenuse**
= 4.0**4.9**
= **0.82...**

tan (35°) = Opposite **Adjacent**
= 2.8**4.0**
= **0.70...**

The Calculation

Ok, now attempting to calculate the distance that the Earth drops down per mile, the equation would equal radius² + distance² = (radius + drop).

In this example r = radius, d = distance, h = height/drop.

The measure or rate of drop or curvature can be written in equation as $\sqrt{(r^2 + d^2)} - r$ = drop. Should the radius of the Earth be 3,963 miles, at one mile distance, the equation can be solved as $\sqrt{(3963^2 + 1^2)} - 3963$ = drop.

Putting that into a calculator you get drop = .000126 mi.

There are 5280 feet in a mile and 12 inches in a foot. So, .000126 x 5280 x 12 = the rate of curvature should correspond to 7.98336 inches as calculated by this formula, or approximately 8 inches of curvature x miles squared. Meaning that over a certain distance, one must simply square the root of the distance traveled in miles and then multiply that figure by eight inches. For example, traveling one mile, one would multiply 8 x 1 and then square that number:

8(1×1) = 8 Inches of total curvature

Determining curvature over the first ten miles in inches, the rate would amount to:

8(1×1) = 8 Inches of total curvature

8(2×2) = 32 Inches of total curvature

8(3×3) = 72 Inches of total curvature

8(4×4) = 128 Inches of total curvature

8(5×5) = 200 Inches of total curvature

8(6×6) = 288 Inches of total curvature

8(7×7) = 392 Inches of total curvature

8(8×8) = 512 Inches of total curvature

8(9×9) = 648 Inches of total curvature

8(10×10) = 800 Inches of total curvature

Converting the total number of inches of curvature into feet, simply divide that number by twelve, since there are twelve inches per feet, or twelve inches in one foot. The table below shows how much measurable curvature should exist in scale of miles according to the distances listed prior.

8(1×1)/12 = 0.666 Feet of total curvature

8(2×2)/12 = 2.666 Feet of total curvature

8(3×3)/12 = 6 Feet of total curvature

8(4×4)/12 = 10.666 Feet of total curvature

8(5×5)/12 = 16.666 Feet of total curvature

8(6×6)/12 = 24 Feet of total curvature

8(7×7)/12 = 32.666 Feet of total curvature

8(8×8)/12 = 42.666 Feet of total curvature

8(9×9)/12 = 54 Feet of total curvature

8(10×10)/12 = 66.666 Feet of total curvature

Thus, if the Earth is 25,000 miles in circumference then the curvature would be 8 inches per mile squared. To use his formula for calculation, just square the mileage and multiply by 8. So, if you use 3 miles it is 3 squared (9)

and multiply by 8 (72), which is 6 feet. Therefore, the Earth's curvature at 3 miles should be a rate of 6 feet or 72 inches.

https://www.facebook.com/notes/zen-garcia/globe-vs-flat-Earth-court-case/10219110896191357/?hc_location=ufi

Distance to the Horizon

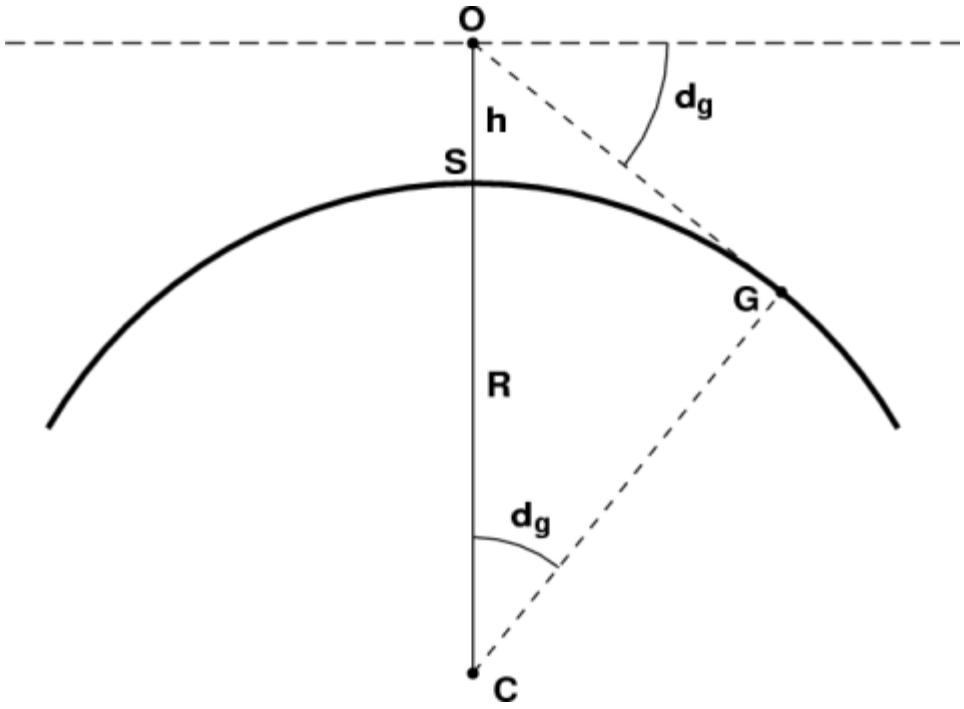
Introduction

People often ask how far you can see, or how far it is to the *apparent horizon*. These questions are somewhat different — obviously, you can see high mountains farther away than low hills or flat islands — but the answer is affected by *terrestrial refraction* in both cases.

Let's first consider these distances without refraction, and then add in the complications of varying refraction. Finally, we'll consider other atmospheric effects that play a part.

No Refraction

Without refraction, the matter is very simple. Here's the diagram from my dip page:



It shows a vertical plane through the center of the Earth (at C) and the observer (at O). The radius of the Earth is R, and the observer's eye is a height h above the point S on the surface. (Of course, the height of the eye, and consequently the distance to the horizon, is greatly exaggerated in this diagram.) The observer's *astronomical horizon* is the dashed line through O, perpendicular to the Earth's radius OC. But the observer's *apparent horizon* is the dashed line OG, tangent to the surface of the Earth. The point G is the *geometric horizon* .

Elementary geometry tells us that, because the angle between the dashed lines at G is a right angle, the distance OG from the observer (O) to the horizon (G) is related to the radius R and the observer's height h by the Pythagorean Theorem:

$$(R + h)^2 = R^2 + OG^2$$

or

$$OG^2 = (R + h)^2 - R^2 .$$

But if we expand the term $(R + h)^2 = R^2 + 2\,R\,h + h^2$, the R^2 terms cancel, and we find

$$OG = \text{sqrt}\ (\ 2\ R\ h + h^2\ )\ .$$

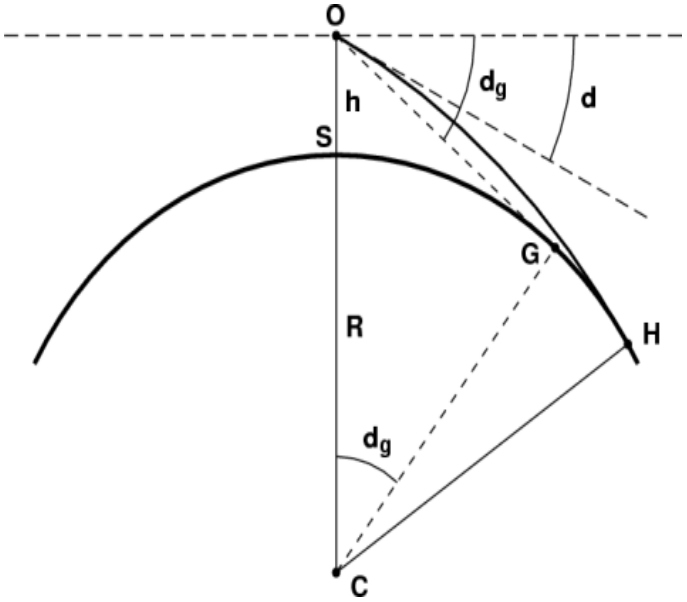
It's customary to use the fact that h << R at this point, so that we can neglect the second term.

Then:

$$OG \approx \text{sqrt}\ (\ 2\ R\ h\ )$$

…is the distance to the horizon, **neglecting refraction**.

Numerically, the radius of the Earth varies a little with latitude and direction; but a typical value is 6378 km (about 3963 miles). If h is in meters, that makes the distance to the geometric horizon 3.57 km times the square root of the height of the eye in meters (or about 1.23 miles times the square root of the eye height in feet).Now let's allow for refraction.



Refraction, considered simply

Now, let's try to allow for refraction. Usually, the air is densest at the surface, so the rays of lig**ht** are concave toward the surface; see the bending page for details.

The solid arc OH now represents the curved line of sight; H is the (refracted) apparent horizon. Notice that refraction lets us see a little farther, if the ray is concave toward the Earth, as shown here.

If we can assume a constant lapse rate in the air between the eye and the Earth's surface, and if the observer's height h is small compared to the 8-km height of the homogeneous atmosphere , then we can assume the curved ray is an arc of a circle. This assumption makes things easy, because the *relative* curvature of the ray and the Earth's surface is all that matters. In effect, we can use the previous result, but just use an effective radius of curvature for the Earth that is bigger than the real one.

This assumption is made so often that it's conventional in surveying and geodesy to use a "refraction constant" that's just the ratio of the two curvatures. A typical value of the ratio is about 1/7; that is, the ray curves about 1/7 as much as the Earth does (or, equivalently, the radius of curvature of the ray is about 7 times that of the Earth's surface).

Using this "typical" value means we should just use the formula given above, but use a value R' instead of R for the effective radius of the Earth, where

$$1/R' = 1/R - 1/(7R) = 6/(7R) ,$$

so that

$$R' = R \times 7/6 .$$

That would make R' about 7440 km, so that the distance to the horizon in kilometers is about 3.86 km times the square root of the height in meters (or about 1.32 miles times the square root of the height in feet).

In fact, this latter result (for English units) is nicely summed up by the **old rule** that 7 times the height in feet is 4 times the square of the distance to the horizon in miles; i.e.,

$$\text{distance to horizon (miles)} = \text{sqrt}\,[\, 7 \times h\ \text{(feet)} / 4\,].$$

NIMA has an on-line calculator that offers both English and metric units. Unfortunately, they put out far too many decimal places, giving a misleading impression of precision.

These approximations are all very handy; but how realistic are they?

Variable Gradients

Unfortunately, the refraction varies considerably from day to day, and from one place to another. It is particularly variable over water: because of the high heat capacity of water, the air is nearly always at a different temperature from that of the water, so there is a thermal boundary layer, in which the temperature gradient is far from uniform.

Worse yet, these temperature contrasts are particularly marked near shore, where the large diurnal temperature swings over the land can produce really large thermal effects over the water, if there is an offshore breeze. This is particularly bad news for anyone standing on the shore and wondering how far out to sea a ship or island might be visible.

It gets worse. While the dip of the horizon depends only on an average temperature gradient, and so can be found from just the temperatures at the sea surface and at the eye, the distance to the horizon depends on the reciprocal of the mean reciprocal of the temperature gradient. But the structure of thermal boundary layers guarantees that there will be large variations in the gradient, even in height intervals of a few meters. This means that on two different days with the same temperatures at the eye and the water surface (and, consequently, the same dip), the distance to the horizon can be very different.

Nasty Complications

In conditions that produce superior mirages, there are inversion layers in which the ray curvature exceeds that of the Earth. Then, in principle, you might see infinitely far — there really would be no horizon — assuming that the thermal inversion extended to the top of the atmosphere.

To an observer within such a super-refracting inversion, the Earth's surface appears to be concave instead of convex. Also, because these inversions are limited in thickness, the distance to which you can see will be limited by the highest visible ray that is trapped in the *duct* produced by the strong inversion. That limiting ray corresponds to a "false horizon" a few minutes of arc above the astronomical one. If the limiting ray has very nearly

the Earth's curvature, you could see a long way; if the difference of the curvatures is large, the false horizon may be only a few kilometers away.

If the ray curvature exceeds the Earth's curvature everywhere below the observer, every horizontal ray in this region bends down to strike the surface at a small angle. Then no ray can be tangent to the Earth's surface, so there is really no true horizon in the usual sense — only the top of the duct, which acts as a (false) "horizon surface" that looks like an apparent horizon to all observers. Its dip is positive for observers above the duct, and negative for observers within the duct. This case was studied by **Hasse (1960)**.

However, if the super-refracting inversion does not extend down to the surface, there are additional complications. An observer who is beneath the inversion, but still within the lower part of its duct, can see three horizon-like boundaries. The lowest is the usual sea horizon; but above it, there is a superior mirage — an inverted image — of a more distant sea horizon. And above that is Hasse's false horizon.

Visibility

Of course, we all know that visibility is limited by the clarity or haziness of the air. And the *duct* that (in principle) might allow you to see around the whole Earth doesn't really extend that far; it typically exists for some limited region, perhaps a few tens or a few hundreds of kilometers.

So the nice-looking formulae for calculating "the distance to the horizon" are really only rough approximations to the truth. You can consider them accurate to a few per cent, most of the time. But, occasionally, they will be wildly off, particularly if superior mirages are visible. Then it's common to see much farther than usual — a condition known as *looming*.

How far can you see?

Still, even with those caveats, it's of interest to consider how far the eye can see under different conditions. Usually the visibility is limited by scattered light in the lower atmosphere. Even under extremely clear conditions, it's unusual to see more than a couple of hundred kilometers.

However, there is one situation in which objects can be made out at great distances: when they are silhouetted against a bright background, such as the setting Sun, or (just after sunset) a bright twilit sky.

Here in San Diego, we rarely can see San Clemente Island, about 125 km offshore. The top of the island should just be visible above our horizon with normal refraction, but it's concealed by "airlight" during the day. Even in the clear air of a "Santa Ana," which causes looming and raises more of the island above the apparent horizon, it's often hard to make out.

But just after sunset, the island is often visible, if you know where to look. The air between you and the island is only dimly illuminated after sunset, but the sky behind the island — i.e., the air beyond the horizon that is still in direct sunlight — is still fairly bright. Then the silhouette of the island is striking, even if it had been invisible a few minutes before sunset.

The Sun itself **can be seen** through a long duct when it is several degrees below the astronomical horizon; however, its image is then so **distorted** that any intervening terrestrial object (such as an island, a mountain, or even a cloud) would probably also be so distorted that its silhouette against the Sun would be unrecognizable. Some extreme claims can surely be discounted, such as **Jessen's 1914** illusion. (Jessen claimed to have seen a mountain nearly 900 km away, but he certainly did not; **Korzenewsky (1923)**, who refers to this report in a footnote, somehow inflated that to 1177 km.)

What's the record for visibility without help from the silhouetting effect? I think that might belong to the report of the expedition led by **Korzenewsky (1923)**, who reported seeing snow-capped peaks of a mountain range 750 km away. Conditions were perfect: the lower atmosphere was in shadow at sunset; the peaks were quite high (4650 meters, or over 15,000 feet); they were covered with white snow, increasing their visibility; and there must also have been considerable looming to bring these distant features above the observers' horizon. As the observation was made on June 1, near the peak of superior-mirage season, the looming is not improbable, though the amount required is hard to believe. The observers themselves were in the deserts of Turkestan [now southeastern Kazakhstan] at a height

of nearly a kilometer, where the dryness of the air favored extreme clarity, and looking across a broad, sandy depression. And, of course, much of the air path was in thinner air well above ground level, because of the mountains' height.

For less extreme, but very reliable, observations, consider some listed by Commander C. L. Garner of the Coast and Geodetic Survey in **1933**. He says that instrumental measurements were made in both directions "between Mt. Shasta and Mt. St. Helena in California, a distance of 192 miles." [That's 309 km.] Apparently this was done in normal conditions, with no looming ; heliotropes having 12-inch [30-cm] mirrors were used. He also credits the 1911 sighting of the Fairweather Mountains in Alaska from the ship *Explorer* in the Gulf of Alaska, 330 miles [531 km] away.

Without resorting to an artificial light source, there's the example of mountains in Corsica, seen repeatedly from Genoa, Italy, at a distance of over 260 km. The best visibility was just before sunrise and just after sunset, when the distant peaks were silhouetted against the bright twilit sky: the lower atmosphere was in the Earth's shadow, while the upper troposphere was still lit by direct sunlight. These observations were extensively discussed by **Maraldi** four centuries ago.

If you'd like to explore the consequences of various (constant) values for the lapse rate, I have a JavaScript calculator here. It uses the simplistic circular-ray approximation, so take its calculations with a grain of salt. In any case, it's too simple-minded to handle the complications produced by ducts, so beware of trying to run it with strong thermal inversions.

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Water Should Curve in The Heliocentric Model…Yet Never Witnessed in All History

If the Earth is a globe, and is 25,000 English statute miles in circumference, the surface of all standing water must have a certain degree of convexity—every part must be an arc of a circle. From the summit of any such arc there will exist a curvature or declination of 8 inches in the first statute mile. In the second mile the fall will be 32 inches; in the third mile, 72 inches, or 6 feet, and so on. And yet, no person in the vast span of recorded history has ever found seen or measured such curvature in ocean water.

Likewise when considering the natural properties and physics of water, it is difficult to conceive in affirmation how the Earth's oceans, could possibly adhere to its surface given that water will always drip or leak off of any form which does not like a basin contain it. Water always, at its lowest point, gathers in pool, and then settles out in level.

The Natural Physics of Water Confirm Earth Flat

It is part of the natural physics of water and other fluids to always find their level and remain flat. If disturbed in any way, motion ensues until the flat level is resumed. If dammed up then released, the nature of all liquids is to quickly flood outwards taking the easiest course towards finding its new level.

The upper surface of a fluid at rest is a horizontal plane. If a part of the surface were higher than the rest, those parts of the fluid which were under it would exert a greater pressure upon the surrounding parts than they receive from them, and so motion would take place amongst the fluid and continue until there was no fluid at a higher level than the rest, that is, until the upper surface of the whole mass of fluid became a horizontal plane

If the Earth is an extended flat plane, then this fundamental physical property of fluids finding and remaining level is consistent with experience, empirical observation, and common sense. If, however, the Earth is a giant sphere tilted on its vertical axis spinning through never-ending space, then it follows that truly flat, consistently level surfaces do not exist here. Moreover, if the Earth is spherical then it follows that the surface of all Earth's water, including the massive oceans, must maintain a certain degree of convexity. But this is contrary to the fundamental physical nature of water to always be and remain level.

--http://www.atlanteanconspiracy.com/2015/01/water-confirms-Earth-flat.html

Tides

Tides, said to be the result of The Moon's alleged gravitational effect, would pull up upon the side of the Earth that The Moon was facing at any given time, leaving the opposing side of the Earth's oceans untouched by this alleged gravitational force. And so, it cannot be said that The Moon causes a concavity of curved ocean water for in such an assertion lies the admission that one half of the Earth exhibits curved water while the other half, devoid of the Moon's grasp, remains perfectly flat. This lopsided model has never been observed and therefore has no basis for its credibility.

Water Does Not Curve

When you mention to people that large bodies of contiguous water droplets do not curve, and that there is not one instance in all of scientific investigation that empirically demonstrates water curving in a lake or ocean, or even in a water glass, you are confronted with mockery and ridicule. Most people just assume that water curves around a huge spinning planet.

What they will tell you is that the surface of all water is curved. Even a small lake's surface follows the curvature of the Earth they say. We just don't notice it in such a small body.

They continue to say that it is not only water that has this effect, much of the interior of the Earth itself is liquid and the continents float on this. Gravity causes the planet to be round because every part of it is pulled to the center but this motion to the center is opposed by pressure. It means a condition or shape that if pushed by some external force to be different will return the same condition when the force is removed. The curved shape of the water is due to a stable equilibrium or balance between pressure and Gravity

Additionally, they say, there is another way to make water round: Surface tension. Water molecules have electric charges that cause them to be attracted to each other. But the last layer of molecules in a water drop are special because they only have other water to one side but not on the other side. They flip around and attract to each other's and form a kind of balloon-like shell that compresses the water inside. In the water drop we have the same balance of pressure pushing out and surface tension pushing in and we see the same lowest energy equilibrium shape, a sphere.

But, of course, this effect only works on smaller drop of water, they may confess, but nevertheless, on larger bodies of water, Gravity dominates.

But Gravity has never been confirmed to exist, and if the planet is too big to see the curved oceans, then how is it that we are seeing ships sail over the horizon at the same time? There is a massive contradiction in the Heliocentric logic regarding curved water. Water always seeks its own level.

Lastly, if Gravity is so strong it could hold and shape trillions of tons of ocean water to conform to a massive ball spinning at 1000 miles per hour, how is that a little helium balloon or butterfly can defy Gravity.

None of this adds up.

Magic Gravity Cannot Help

Invoking magical Gravity to accomplish this impossible feat of spherical concavity will not work since there is no scientific empirical

evidence to support the hypothesis that any force produces a homogeneously isotropic concavity to a body of water in any laboratory situation, lake, pool, sea or ocean. Pure science is not in the habit of asserting magical properties to things it has never confirmed. As such, Gravity would only apply if one were to attribute superstitious speculations to physics.

Gravity is Weak But Paradoxically Strong???

The Sun and The Solar System are said by NASA scientists to be moving at an average speed of 448,000 mph (720,000 km/h). In this Heliocentric Model, we have a huge contradiction with respect to the force of alleged Gravity.

You see, this mythical Gravity is said to be one of the weakest of all the forces. Take a moment to try a jump into the air. Have you ever thought about how remarkable it is that so little effort is required to jump a few inches off the ground. Your puny muscles, weighing just a few kilograms, can overcome the gravitational force of the Earth, all alleged 6 × 1024 kilograms off it. And so, Gravity is a real weakling…approximately negative 10 to the 40th times weaker than the electromagnetic force that holds atoms together, according to NASA scientists.

That's a negative 10 to the power of 40, which equals:

10,000,000,000,000,000,000,000,000,000,000,000,000,000 times weaker than the electromagnetic force that holds atoms together.

And yet, The Sun is said by NASA scientists to be moving at an average speed of 448,000 mph, with The Earth stuck to it in a spiral orbit. This is a massive contradiction in epistemological ideologies. Even the huge celestial body masses involved cannot account for such a massive attraction

between The Sun and The Earth while travelling through Outer Space, if we are to simultaneously regard Gravity as the weakest of forces. You cannot have it both ways. No amount of ridiculous astronomical equations using Newton's Laws of Gravity and the size of celestial bodies can ever fix this mess.

It's the same nonsensical paradox as the idea that the collective drops of ocean water are so massive and united that they allow Gravity to hold them to a spinning Earth, while a tiny baby can splash in the ocean and effortlessly separate these "united" ocean drops. In other words, they are not united. They are separate drops with no extra united mass. And Gravity is said to hold the oceans down because of their collective mass.

Soap bubbles rise and oceans lay flat because Gravity is both the weakest and strongest of all forces, right? And, soap bubbles are light so they rise, but weather balloons that weight up to 200 pounds rise too, while pebbles that weight two ounces sink in water. None of this makes sense if Gravity is the explanation. Then apply density and buoyancy to the situation, and suddenly everything makes sense.

It is a mockery of real science.

And yet, at the same time The Earth, and its accompanying "planets" (Wandering Stars) are said to be orbiting around The Sun as it hurls through Outer Space at a mind numbing 448,000 mph. Magically the force of Gravity is so weak that you can jump up and dunk a basketball into a hoop, but so strong that the entire Solar System of planets, space debris, and asteroids are locked against it in an orbit as it flies through Outer Space at 448,000 mph.

Now mind you, even if we were to accept that Outer Space had no friction because of its vacuum nature, there are still billions of not trillions of bits of space debris, asteroids, meteors, Space Time continuum aberrations, Quasars, Black Holes, and Gravitational anomalies (going strictly by the

science NASA has offered) that would throw The Earth and accompanying planets off track from their 448,000 mph orbital spiral dance.

And yet, nothing has changed in the planets' seasonal transit and positions since the beginning of time.

Hence, the hoax of Gravity is most clearly understood when you consider the celestial velocity that The Solar System is supposed to be travelling, while still managing to hold The Earth stuck in an orbit around a rocketing Sun, while allegedly being a force that is approximately: 10,000,000,000,000,000,000,000,000,000,000,000,000,000 times weaker than the electromagnetic force that holds atoms together.

Sorry, Gravity just died forever.

The Three-Body Problem: NASA's Big Fish Gravitational Story of The Earth, The Moon, and The Sun

The primary problem with The Heliocentric Model has always been The Three Body Problem, where the alleged combined gravitational pulls of The Earth, The Moon, and The Sun would interrupt each other other's ability to hold their respective satellite bodies in orbit around them. In other words, why would The Moon not be drawn away out of its orbit around The Earth by the far more powerful alleged gravitational pull of The Sun? Over time, most certainly the combined gravitational pulls of these three celestial bodies would disrupt each other to the point of creating a chaotic gravitational mess.

The Three-Body problem is our best way of understanding the initial positions and velocities (or momenta) of three celestial bodies, and solving

for their subsequent motion according to Newton's Laws of Motion and Newton's Law of Universal Gravitation. Unlike Two-Body Problems, no general closed-form solution exists, as the resulting dynamical system is chaotic, and therefore too unstable to maintain dynamic equilibrium. And, with respect to the case of The Moon, The Earth, and The Sun, the result would be an overall disrupted gravitational bond between all bodes, and the obitual dissolution of the three.

Given The Three-Body Problem, there are at least three other variables to contend with, in addition to the obvious mathematical chaos inherent within this gravitational impossibility:

1) The Mass Variable
2) The Distance Variable
3) The Velocity Variable

The Mass Variable

And, if we are to assume that The Sun's gravitational pull is too weak to draw The Moon away from its alleged orbit around The Earth due to The Moon's relatively small mass, when compared to The Earth, then we, likewise, must assume that The Sun is too weak to hold The Earth in orbit around it, in that The Moon is said to be just a bit more than one-fourth (27 percent) the size of Earth, making it, with respect to The Sun's alleged 93 million miles away distance, approximately the same mass as The Moon. At 93 million miles away, The Sun would not be able to discriminate between The Earth and The Moon and selectively pull The Earth while leaving The Moon untouched and locked in orbit around The Earth.

As I always say, regarding NASA's Big Fish Story of celestial gravitational attraction, "You can't have it both ways." You can't hold The Earth locked in an orbit without equally locking The Moon in orbit, INDEPENDENT of The Earth, causing The Moon to unlock from its

alleged orbit around The Earth, and go hurling through space to crash onto The Sun.

The Distance Variable

Additionally, if one claims that The Earth's gravitational effect at 294,000 miles away from The Moon is comparatively stronger than The Sun's gravitational effect at 93 million miles away, which therefore, enables The Earth to hold The Moon in orbit in spite of The Sun's stronger absolute gravitational effect, one must equally claim confess that The Sun would, thus, be unable to hold The Earth in orbit from that same 93 million miles away.

Again, as I always say, regarding NASA's Big Fish Story of celestial gravitational attraction, "You can't have it both ways."

The Velocity Variable

The third variable with regard to The Three-Body Problem, has to do with the velocity in which The Sun and The Solar System are said by NASA scientists to be moving through Outer Space, with a mind numbing average speed of 448,000 mph. At this terrific velocity, we are supposed to believe that The Sun, Moon, Earth, as well as the entire Solar System for that matter, are held in an locking orbital system while flying at 448,000 mph, hitting billions of not trillions of bits of space debris, asteroids, meteors, Space Time continuum aberrations, Quasars, Black Holes, and Gravitational anomalies.

These are the celestial mechanics and casual phenomena from NASA. They made up all this nonsense, and now they cannot untangle the wicked web they have woven.

Mathematicians Struggle to Solve The Three-Body Problem: The Restricted Three-Body Problem

One solution to The Three-Body Problem was for Astronomers to regard The Moon and The Earth as a one-body system, and therefore, The

Sun conveniently becomes one of two body systems, thereby, simplifying the mathematics in the overall problem. They called this solution, "The Circular Restricted Three-Body Problem". The Circular Restricted Three-Body Problem is an approximation of elliptical orbits found in the Solar System, and this can be visualized as a combination of the potentials due to the Gravity of the two primary bodies, in this case The Sun and The Earth, along with the centrifugal effect from their rotation.

Other Mathematical Problems Involving Three Bodies

A quantum mechanical analogue of the gravitational three-body problem in classical mechanics is the helium atom, in which a helium nucleus and two electrons interact according to the inverse-square Coulomb interaction. Coulomb's law, or Coulomb's inverse-square law, is an experimental law of physics that quantifies the amount of force between two stationary, electrically charged particles. The electric force between charged bodies at rest is conventionally called electrostatic force or Coulomb force. Like the gravitational three-body problem, the helium atom cannot be solved exactly.

In both classical and quantum mechanics, however, there exist nontrivial interaction laws besides the inverse-square force which do lead to exact analytic three-body solutions. One such model consists of a combination of harmonic attraction and a repulsive inverse-cube force. This model is considered nontrivial since it is associated with a set of nonlinear differential equations containing singularities (compared with, e.g., harmonic interactions alone, which lead to an easily solved system of linear differential equations). In these two respects it is analogous to (insoluble) models having Coulomb interactions, and as a result has been suggested as a tool for intuitively understanding physical systems like the helium atom.

The Gravitational Three-Body Problem

The Gravitational Three-Body Problem has also been studied using general relativity. Physically, a relativistic treatment becomes necessary in systems with very strong gravitational fields, such as near the event horizon of a black hole. However, the relativistic problem is considerably more difficult than in Newtonian mechanics, and sophisticated numerical techniques are required. Even the full two-body problem (i.e. for arbitrary ratio of masses) does not have a rigorous analytic solution in general relativity.

After considering all these mathematical complexities, it should be clear to anyone that the idea of The Sun, Moon, and Earth can remain locked in an orbital system is both laughable as well as mathematically impossible.

The Following Real-World Evidence Illustrates the Earth's Lack of Curvature

Example 1:

Using the formula for calculating measurable curvature, we apply them to real world scenarios like for instance, New York's Statue of Liberty. Standing 326 feet above sea level, she can be, on a clear day, seen from as far as 60 miles away. Applying the formula for determining the rate of measurable curvature on a globular Earth, such appearance should be impossible given 2,072 feet of curvature should exist in obstruction between Lady Liberty and the viewers at that distance.

Example 2:

Photographer Joshua Nowicki, a few years ago caused an enormous controversy, when standing on the shores of Lake Michigan, he was able to snap a picture of the Chicago skyline from 50+ miles away. His panorama became a spectacle, given that it should be impossible at that distance to see visually even the antenna sitting atop the 108-story Willis, formerly known as Sears Tower. Rising to 1,451 feet in height, this building should have been hidden completely by the 1666.67 feet of curvature which should have

impeded the photographers view of the skyline. Even just seeing the antenna on top of the tallest buildings should have been structurally impossible and yet Joshua was able to capture and visibly portray the entire length of Chicago's panoramic cityscape.

That night a Chicago weatherman on the evening news, attempted to explain clearly what is seen in the image, his efforts away as a mirage due to refraction. His boast was the next summer confirmed false, by two of my colleagues, Rob Skiba and Rick Hummer. These gentlemen went to Chicago and made a video documentary, confirming that one can not only see the picturesque Chicago cityscape from the side of Lake Michigan where Joshua took his picture. But then rode across Lake Michigan in a boat, filming the entirety of the city growing in scope and size as one came nearer to it. This documentary affirmed without a doubt that one could in fact, see the Chicago skyline from such distance and that it was not as the weatherman claimed a mirage. (https://www.youtube.com/watch?v=o37t6iBS_q4)

He also interviewed several native peoples from that area, who all shared conclusively that seeing the Chicago skyline from such distance was a normal and daily possibility and that the only things which could skew in some slight manner such viewing, would be inclement weather. However, more or less it was daily possible to see the entire cityscape even when in windy conditions and the waves from the opposite shores of Lake Michigan were choppy.

Example 3:

Residents of the island of Oahu in Hawaii, attest to being able to regularly view from their homeland, the island of Kauai in excess of 90 miles distant from them.

Such viewing should be improbable even at 200 feet of elevation as there should be 5400 feet or nearly a mile of curvature dividing those islands from one another. Yet, Hawaiian natives avow to their ability to see some of the other islands of their archipelago at such distance and range, regular occurrence.

The Bible says out of the mouths of two or three witnesses shall the truth be established. This passage and premise had established lawful jurisprudence. I literally can provide hundreds of confirmations as to the validity of my claim, while Mr. Thompson cannot verifiable affirm one, which is reason why I denied his delusional claim that he had succeeded in satisfying the stipulations of the contest.

Bridges, Canal, Railroads

Another little-known fact which immediately forces one to consider whether there is any measurable curvature to the supposed rotundity of the Earth, surveyors, engineers, and architects are never required to factor into their projects, the nonexistent curvature of the Earth. Structures such as canals, railways, and bridges when assembled often over hundreds of miles are, for example, always cut, measured, and laid out horizontally level without the mathematical calculation or allowance for any such curvature. Several eyewitness testimonies published in various 19th century publications affirm such notion.

One surveyor, Mr. T. Westwood, wrote into the January 1896 "Earth Review" magazine, "In leveling, I work from Ordinance marks, or canal levels, to get the height above sea level. The puzzle to me used to be, that over several miles each level was and is treated throughout its whole length as the same level from end to end; not the least allowance being made for curvature. One of the civil engineers in this district, after some amount of argument on each side as to the reason why no allowance for curvature was made, said he did not believe anybody would know the shape of the Earth in this life."

Another Surveyor and Engineer of thirty years wrote to the Birmingham Weekly Mercury, Feb. 15th, 1890, "I am thoroughly acquainted with the theory and practice of civil engineering. However bigoted some of our professors may be in the theory of surveying according to the prescribed rules, yet it is well known amongst us that such theoretical measurements are incapable of any practical illustration. All our locomotives are designed to run on what may be regarded as true levels or flats. there are, of course, partial inclines or gradients here and there, but they are always accurately defined

and must be carefully traversed. But anything approaching to eight inches in the mile, increasing as the square of the distance, could not be worked by any engine that was ever yet constructed.

Taking one station with another all over England and Scotland, it may be stated that all the platforms are on the same relative level. The distance between Eastern and Western coasts of England may be set down as 300 miles. If the prescribed curvature was indeed as represented, the central stations at Rugby or Warwick ought to be close upon three miles higher than a chord drawn from the two extremities. If such was the case, there is not a driver or stoker within the Kingdom that would be found to take charge of the train. We can only laugh at those of your readers who seriously give us credit for such venturesome exploits, as running trains round spherical curves. Horizontal curves on levels are dangerous enough, vertical curves would be a thousand times worse, and with our rolling stock constructed as at present physically impossible."

Engineer, W. Winckler, wrote into the Earth Review October 1893 regarding the Earth's supposed curvature, "As an engineer of many years standing, I saw that this absurd allowance is only permitted in schoolbooks. No engineer would dream of allowing anything of the kind. I have projected many miles of railways and many more of canals and the allowance has not even been thought of, much less allowed for. This allowance for curvature means this - that it is 8" for the first mile of a canal, and increasing at the ratio by the square of the distance in miles; thus a small navigable canal for boats, say 30 miles long, will have, by the above rule an allowance for curvature of 600 feet. Think of that and then please credit engineers as not being quite such fools. Nothing of the sort is allowed. We no more think of allowing 600 feet for a line of 30 miles of railway or canal, than of wasting our time trying to square the circle"

The Suez Canal which connects the Mediterranean Sea with the Gulf of Suez on the Red Sea is a clear confirmation of the Earth's and water's non-convexity. The canal is 100 miles long and without any locks, so the water within is an uninterrupted continuation of the Mediterranean Sea to the Red Sea. When it was constructed, the Earth's supposed curvature was not taken

into account, it was dug along a horizontal datum line 26 feet below sea-level, passing through several lakes from one sea to the other, with the datum line and the water's surface running perfectly parallel over the 100 miles.

"The distance between the Red Sea at Suez and the Mediterranean Sea is 100 statute miles, the datum line of the Canal being 26 feet below the level of the Mediterranean, and is continued horizontally the whole way from sea to sea, there not being a single lock on the Canal, the surface of the water being parallel with the datum line. It is thus clear that there is no curvature or globularity for the whole hundred miles between the Mediterranean and the Red Sea; had there been, according to the Astronomic theory, the middle of the Canal would have been 1,666 feet higher than at either end, whereas the Canal is perfectly horizontal for the whole distance.

The Great Canal of China, said to be 700 miles in length, was made without regard to any allowance for supposed curvature. -David Wardlaw Scott, "Terra Firma"

The 5th August 1892, 'The German Emperor performed the ceremony of opening the Gates of the Baltic and North Sea Canal, in the spring of 1891. The canal starts at Holtenau, on the south side of Kiel Bay, and joins the Elbe 15 miles above its mouth. It is 61 miles long, 200 feet wide at the surface and 85 feet at the bottom, the depth being 28 feet. No locks are required, as the surface of the two seas is level.'

Let those who believe it is the practice for surveyors to make allowance for 'curvature' ponder over the following from the Manchester Ship Canal Company (Earth Review, October 1893) 'It is customary in Railway and Canal constructions for all levels to be referred to a datum which is nominally horizontal and is so shown on all sections. It is not the practice in laying out Public Works to make allowances for the curvature of the Earth." -Thomas Winship, "Zetetic Cosmogeny"

The London and Northwestern Railway forms a straight line 180 miles long between London and Liverpool. The railroad's highest point, midway at Birmingham station, is only 240 feet above sea-level. If the world were actually a globe, however, curveting 8 inches per mile squared, the 180 mile

stretch of rail would form an arc with the center point at Birmingham raising a full 5,400 feet above London and Liverpool. Adding the station's actual height (240 feet) to its theoretical inclination (5,400 feet) gives 5,640 feet as the rail's necessary height on a globe-Earth, more than a thousand feet taller than Ben Nevis, the tallest mountain in Great Britain!

"In projecting railways on a globe, the datum line would be the arc of a circle corresponding to the latitude of the place. That the datum line for the railway projections is always a horizontal line, confirms that the general configuration of the world is horizontal. To support the globe theory, the gentlemen of the observatories should call upon the surveyor to confirm that he allows the necessary amount for 'curvature.' But this is what the learned men dare not do, as it is well-known that the allowance for the supposed curvature is never made." -Thomas Winship, "Zetetic Cosmogeny"

"In a long line, like that of the Great Pacific Railway, extending across North America, the supposed curvature would, of course, be proportionately great, extending to many miles in height, but not one inch was allowed by the engineers for curvature during the whole course of the construction of that vast line of Railway. And, if we think of it, how could it be otherwise? All Railway metals must, of necessity, be straight, for how could any engine or carriage run with safety on a convex surface?" -David Wardlaw Scott, "Terra Firma"

J.C. Bourne in his book, "The History of the Great Western Railway" stated that the entire original English railroad, more than 118 miles long, that the whole line with the exception of the inclined planes, may be regarded as level. The 1862 British Parliament Session which confirmed its construction, recorded in Order No. 44 for the proposed railway, "That the section be drawn to the same HORIZONTAL scale as the plan, and to a vertical scale of not less than one inch to every one hundred feet, and shall show the surface of the ground marked on the plan, the intended level of the proposed work, the height of every embankment, and the depth of every cutting, and a DATUM HORIZONTAL LINE which shall be the same throughout the whole length of the work."

"One hundred and eighteen miles of LEVEL railway, and yet the surface on which it is projected a globe? Impossible. It cannot be. Early in 1898 I met Mr. Hughes, chief officer of the steamer 'City of Lincoln.' This gentleman told me he had projected thousands of miles of level railway in South America, and never heard of any allowance for curvature being made. On one occasion he surveyed over one thousand miles of railway which was a perfect straight line all the way.

It is well known that in the Argentine Republic and other parts of South America, there are railways thousands of miles long without curve or gradient. In projecting railways, the world is acknowledged to be a plane, and if it were a globe the rules of projection have yet to be discovered. Level railways confirm a level world, to the utter confusion of the globular school of impractical men with high salaries and little brains." -Thomas Winship, "Zetetic Cosmogeny"

"That in all surveys no allowance is made for curvature, which would be a necessity on a globe; that a horizontal line is in every case the datum line, the same line being continuous throughout the whole length of the work; and that the theodolite cuts a line at equal altitudes on either side of it, which altitude is the same as that of the instrument, clearly confirms, to those who will accept confirmation when it is furnished, that the world is a plane and not a globe." -Thomas Winship, "Zetetic Cosmogeny"

Contemporarily the Danyang–Kunshan Grand Bridge in China, the longest bridge in the world. Built over 4 years by 10,000 workers at a cost of 8.5 billion dollars, a startling 164,800 meters in length, like the canals and railroads mentioned above, did not in its construction take in to account the rate of curvature as cited by the formula for determining such curvature.

https://www.facebook.com/notes/zen-garcia/globe-vs-flat-Earth-court-case/10219110896191357/?hc_location=ufi

Occam's Razor

Occam's razor says that the simplest answer is usually the correct answer. The simplest answers to the Earth's Cosmology are:

1) The Moon is inside the Earth's atmosphere and local because it is so astoundingly clear even though it is allegedly outside of the 7 layers of Earth's atmospheric density.
2) The Sun must be local because it is hotter in some places of the Earth than others due to the Sun's proximity over the Earth. If it was 93 million miles away, its rays would be virtually parallel and equally strong at every point on the Earth that it touched, at the same time.
3) The Sun and The Moon are about the same size because we observe this fact.
4) The Earth is Flat because it exhibits zero curvature.
5) The Earth does not spin because it exhibits zero rotation.
6) The Sun and Moon move above you because this is what we empirically observe.
7) You are stationary because you are not moving.
8) The Stars move above us because we see them move above us.
9) The Stars are small and local because nobody can see even a million miles away, let alone billions of lightyears away, no matter how many times Carl Sagan says that everything is, "millions, billions, and trillions of...".
10) The Sun is inside the Earth's atmosphere because from 121,000 feet up, weather balloons have photographed Bright Spots on the tops of clouds, which can only occur from a local light source.

In the Heliocentric Model, Occam's Razor lay rusting on the bathroom sink...

Chapter 4

The FARCE of Gravity: The Forces That Really Keep Us On The Earth

1) Ferrous and non-Ferrous Magnetism
2) Object Density
3) Buoyancy
4) Electromagnetism
5) Magneto-Dielectricity
6) Atmospheric Pressure
7) Luminiferous Aether
8) Aerodynamics
9) The Electromagnetic Dielectric Differential

What Pulls Things Down if Not Gravity?

Fluid Dynamics

In physics and engineering, fluid dynamics is a subdiscipline of fluid mechanics that describes the flow of fluids—liquids and gases. It has several

subdisciplines, including aerodynamics (the study of air and other gases in motion) and hydrodynamics (the study of liquids in motion).

Fluid dynamics offers a systematic structure—which underlies these practical disciplines—that embraces empirical and semi-empirical laws derived from flow measurement and used to solve practical problems. The solution to a fluid dynamics problem typically involves the calculation of various properties of the fluid, such as **flow velocity, pressure, density, and temperature, as functions of space and time.**

Gas Pressure

An important property of any gas is its pressure. We have some experience with gas pressure that we don't have with properties like viscosity and compressibility. Every day we hear the TV meteorologist give value of the barometric pressure of the atmosphere (29.8 inches of mercury, for example). And most of us have blown up a balloon or used a pump to inflate a bicycle tire or a basketball.

Because understanding what pressure is and how it works is so fundamental to the understanding of aerodynamics, we are including several slides on gas pressure in the Beginner's Guide. An interactive atmosphere simulator allows you to study how static air pressure changes with altitude. The FoilSim program shows you how the pressure varies around a lifting wing, and the EngineSim program shows how the pressure changes through a turbine engine. Another simulator helps you study how pressure changes across shock waves that occur at high speeds. There are two ways to look at pressure: (1) the small scale action of individual air molecules or (2) the large scale action of a large number of molecules.

Molecular Definition of Pressure

From the kinetic theory of gases, a gas is composed of a large number of molecules that are very small relative to the distance between molecules. The molecules of a gas are in constant, random motion and frequently collide with each other and with the walls of any container. The molecules possess the physical properties of mass, momentum, and energy. The momentum of a single molecule is the product of its mass and velocity, while the kinetic energy is one half the mass times the square of the velocity. As the gas molecules collide with the walls of a container, as shown on the left of the figure, the molecules impart momentum to the walls, producing a force perpendicular to the wall. The sum of the forces of all the molecules striking the wall divided by the area of the wall is defined to be the pressure. The pressure of a gas is then a measure of the average linear momentum of the moving molecules of a gas. The pressure acts perpendicular (normal) to the wall; the tangential (shear) component of the force is related to the viscosity of the gas.

Scalar Quantity

Let us look at a static gas; one that does not appear to move or flow. While the gas as a whole does not appear to move, the individual molecules of the gas, which we cannot see, are in constant random motion. Because we are dealing with a nearly infinite number of molecules and because the motion of the individual molecules is random in every direction, we do not detect any motion. If we enclose the gas within a container, we detect a pressure in the gas from the molecules colliding with the walls of our container. We can put the walls of our container anywhere inside the gas, and the force per area (the pressure) is the same. We can shrink the size of our "container" down to an infinitely small point, and the pressure has a single value at that point. Therefore, pressure is a scalar quantity, not a vector quantity. It has a magnitude but no direction associated with it. Pressure acts in all directions at a point inside a gas. At the surface of a gas, the pressure force acts perpendicular to the surface.

If the gas as a whole is moving, the measured pressure is different in the direction of the motion. The ordered motion of the gas produces an ordered component of the momentum in the direction of the motion. We associate an additional pressure component, called dynamic pressure, with this fluid momentum. The pressure measured in the direction of the motion is called the total pressure and is equal to the sum of the static and dynamic pressures described by Bernoulli's equation.

Macro Scale Definition of Pressure

Turning to the larger scale, the pressure is a state variable of a gas, like the temperature and the density. The change in pressure during any process is governed by the laws of thermodynamics. You can explore the effects of pressure on other gas variables at the animated gas lab. Although pressure itself is a scalar, we can define a pressure force to be equal to the pressure (force/area) times the surface area in a direction perpendicular to the surface. The pressure force is a vector quantity.

Pressure forces have some unique qualities as compared to gravitational or mechanical forces. In the figure shown above on the right, we have a red gas that is confined in a box. A mechanical force is applied to the top of the box. The pressure force within the box opposes the applied force according to Newton's third law of motion. The scalar pressure equals the external force divided by the area of the top of the box. Inside the gas, the pressure acts in all directions. So the pressure pushes on the bottom of the box and on the sides. This is different from simple solid mechanics. If the red gas were a solid, there would be no forces applied to the sides of the box; the applied force would be simply transmitted to the bottom. But in a gas, because the molecules are free to move about and collide with one another, a force applied in the vertical direction causes forces in the horizontal direction.

https://www.grc.nasa.gov/www/k-12/airplane/pressure.html

Relative Density (Specific Gravity) Does Not Require Gravity

Relative density is the ratio of the density (mass of a unit volume) of a substance to the density of a given reference material. Specific Gravity usually means relative density with respect to water. The term "relative density" is often preferred in scientific usage. It is defined as a ratio of density of particular substance with that of water.

If a substance's relative density is less than one, then it is less dense than the reference; if greater than 1 then it is denser than the reference. If the relative density is exactly 1 then the densities are equal; that is, equal volumes of the two substances have the same mass. If the reference material is water, then a substance with a relative density (or specific Gravity) less than 1 will float in water. For example, an ice cube, with a relative density of about 0.91, will float. A substance with a relative density greater than 1 will sink.

But, Gravity has nothing to do with this situation. It is literally the relative density of objects, and their relative index of buoyancy in a particular medium that dictates all this vertical motion.

Some Like to Ask, "Then Why Do Things Fall Down?"

That's like asking, "Why is Helium lighter than air? Why do birds get to fly and dogs don't? Why is the color green, green? Why do denser things get to sink? Why do magnets have magnetism?" These are all nonsensical questions in science. There is an established order of natural events and objects. Taxonomy. It is simply the way nature was designed. Mankind can discover this natural order, but WHY the natural order was Created is philosophy and theology not science.

You might as well ask, "Why does Gravity pull things down and not sideways?" Since Gravity does not even exist, you can make up anything you like regarding it. You might as well say "Gravity is a force that pulls all objects UP, but density pulls objects DOWN to Earth." You could just as easily postulate the world to operate that way. You can do this because Gravity is a

malleable, fictional, fantasy force, with no real scientific support. Adding Gravity to the equation is superfluous drivel. It achieves nothing. Denser things sink. Gravity is absolutely unnecessary. Additionally, mythical Gravity explains nothing.

If Gravity is strong enough to keep trillions of tons of ocean stuck to the Earth, why can weak little butterflies defy this insanely strong Gravity? How can Gravity keep a massive boulder glued to the Earth and yet a fragile Helium balloon can completely overpower Gravity and float up?

You see, Gravity is a mythical, Disneyland, Goldilocks force, created by Vatican Jesuits and Freemasons to make the rest of their Heliocentric Evolving Universe Religion more palatable and feasible. Nobody said overcoming a lifetime of brainwashing would be easy for anyone.

Why Don't Things "Fall" Up?

People always say, "What makes things fall down? In must be Gravity." But no, it is just the fluid dynamism of denser and less dense objects in a medium. Gravity is not necessary, there is no magical force pulling things down. You might as well say, "What is causing Helium balloons to "fall up." They rise so surely there is some magical directional force pulling the balloon up, right? No. Again, it is just a matter of the mechanics of density in a medium. No force is pulling down or up. It's just the dynamism of objects finding equilibrium in various mediums with pressure gradients.

What is Buoyancy?

Buoyancy is the ability or tendency to float in water, air or another fluid. Boats float and corks pop out of the water when submerged because of buoyancy. But why do some objects float while others sink?

You may have heard that objects float when they are less dense than water, and objects sink when they are denser than water. And this is true. Density is how tightly packed the mass is in an object - it is the number of

kilograms that each meter cubed of the material weighs. Things like foam, plastic and cork are low density, whereas metals are high density.

But to be more exact, for an object to float, the buoyant force, the force pointing upwards, has to be equal to or greater than the force of Gravity on an object. Otherwise, the object will accelerate downwards and sink.

Density and Buoyancy are the two Vertical Directional Vectors

In a nutshell, Density is responsible for weight and is the downward force. Buoyancy, conversely, cause things to push up or rise. Gravity is nothing but an extraneous and unnecessary imaginary force conjectured to emanate from an imaginary ball center.

Why Don't Denser or Lighter Objects "Fall" Sideways?

The answer is, they do. Hot air balloons float sideways for hundreds of miles, often enough. Birds fall sideways using their wings to facilitate the lateral fall. Jets fly sideways. Bullets fly sideways for a limited time. Butterflies fly sideways. Bees fly sideways. Tennis balls fly sideways. The only reason things eventually start to fall to the ground or rise is because of the properties of matter, expressed as an index of relational density, in relationship to the atmospheric pressure surrounding an object, which asserts a factor of buoyancy. Because the density of objects exists within certain atmospheric pressure gradients, it will either fall down or up depending upon its relational index to the surrounding buoyancy of the medium it is within

Why Do Objects Fall in A Vacuum?

Why do objects fall in a vacuum chamber? Does not that confirm the existence of Gravity? No, it does not. Objects fall in a vacuum contingent upon the relationship of the density of the object and the surrounding atmospheric pressure. A vacuum contains no air and therefore no atmospheric resistance, which means zero buoyant force is acting upon the object, and so it falls.

According to The Heliocentric Model, there is a shared gravitational property to all matter, which accounts for what we call, "the gravitational force". Gravity is thought to be the result of an invisible, unconfirmed, theoretical particle known as The Graviton. When we consider the homogeneous summation of these collective molecular vectors, resulting in the spherical symmetry of Earth, all the horizontal components cancel out, resulting in an amalgamated downward force towards the center of The Earth.. A vector is an object that has both a magnitude and a direction. Geometrically, we can picture a vector as a directed line segment, whose length is the magnitude of the vector and with an arrow indicating the direction. The direction of the vector is from its tail to its head.

It does not fall because of magical Gravitons. Rather, it falls because the property of dense objects in lighter atmospheric mediums dictates that it will fall by natural laws of Fluid Dynamics.

When Would an Object NOT Fall in A Vacuum?

If you were to release a chunk of wood in a vacuum it would fall. However, if you were to fill that vacuum halfway with water and release the same chunk of wood, it would fall until it hit a denser medium, the water, and then cease falling and float because the buoyant properties of water, in relationship to wood, create a supportive pressure gradient for the wood to interact with.

Why Do Objects of Different Densities Fall at The Same Rate in a Vacuum?

It does not matter if you release a feather or a steel ball, they will fall at the same rate in a vacuum. But it has nothing to do with imaginary Gravity. Again, objects fall in a vacuum contingent upon the relationship of the density of the object and the surrounding atmospheric pressure. A vacuum contains no air and therefore no atmospheric resistance, which means zero buoyant force is acting upon the object, and so it falls. Without the

coefficient of friction of atmospheric pressure, both the feather and the steel ball experience no frictional buoyant force to act upon them.

Do Objects of Different Densities Fall at The Same Rate in the Earth's Lower Atmosphere?

Yes, objects of different densities fall at the same rate in the Earth's lower atmosphere. A steel ball and a baseball will fall at the same rate in the Earth's atmosphere on a calm day. The aerodynamic properties of a steel ball and a baseball are equivalent and so the coefficient of friction caused by the ambient air would be negligible.

Do Objects of Different Densities but Different Aerodynamic Structures Fall at The Same Rate in the Earth's Lower Atmosphere?

No, objects of different densities but different aerodynamic structures fall at different rates in the Earth's lower atmosphere? For example, because of the aerodynamic structure of a feather, the atmospheric pressure gradient of air would increase the coefficient of friction between the feather and the atmosphere, which would cause it to flutter on its way down, which would, in turn, retard its descent, when compared to a ball's decent.

Parabolic Trajectory and Atmospheric Density

Why do things objects, denser than air, fall in a parabolic trajectory towards the ground if forcefully ejected, and objects, lighter than air, rise in a parabolic trajectory up if forcefully ejected? If Density makes things fall and Buoyancy makes things rise, should not they fall or rise instantaneously whence ejected from some stationary position? No, they should not because there is still the matter of the surrounding atmospheric pressure to contend with. Atmospheric pressure creates friction and this friction has its own density index in which an object must negotiate with and locate itself within. In other words, an ejected object of a given density will experience the dynamism of objects finding equilibrium in various mediums with pressure gradient differentials.

Do Buoyancy and Density Play A Role in A Free-Falling Plane?

Buoyancy and density still affect both the outside and inside of a free-falling plane. If you are inside the plane, you are affected by the atmospheric pressure inside the plane, which has a pressure gradient differential expressed as pounds per square inch of buoyant force upon the "free falling" person inside the plane. Buoyancy and density are still at play both inside and outside the plane. A free-falling plane is merely an object of density seeking its native index of pressure gradient for equilibrium. Further, this relationship between the density of the plane and the buoyant index of the atmospheric pressure surrounding the plane will be dictated by the aerodynamic formational structure and position of the plane, itself. If the plane's nose is vertical to the ground, the plane will have less buoyancy. If the plane is lateral with appropriate flying gear engaged, it will fly horizontally and remain buoyant in the air.

Newton's Equations are Merely Descriptive

Newton's equations are NOT connected to an imaginary core of an imaginary ball Earth. Newton's equations are simply descriptive tools and very handy, but that's it. They do not explain the REASON for directional vectors, but rather they merely DESCRIBE and PREDICT behavior, nothing more.

Newton’s equations are still useful to describe and calculate motion but not because Gravity is a real force. They are useful because they are descriptive mathematics which are sufficient in describing the way in which object density acts within various mediums.

Magnitude and Direction Vectors

A vector has magnitude (size) and direction. The magnitude of a vector gives the distance an object travels, while direction gives the angle the line forms with respect to the x-axis. Magnitude and direction are dictated by various factors, including Density and Buoyancy, Flow Velocity, Pressure Gradient, and Temperature, as functions of space and time.

Density and Buoyancy Confirms That There Is A Predetermined Order and Structure to Life

The word "Gravity" is used as a red herring to hide the fact that The Earth's electromagnetic field is cooperating with density and buoyancy.

Put an anvil in air and it falls. Density. The anvil is denser than air. Put the same anvil in a pool of Mercury and it floats. Why? Density. Fluid Dynamics, with its variables of flow velocity, pressure, density, and temperature, dictate the outcome. No Gravity is necessary or involved.

If Gravity were a real force it would indiscriminately pull anything down until it hit a solid impenetrable barrier, like the bottom of the holding tank. Liquid Mercury is NOT a solid impenetrable object. And yet, Liquid Mercury will create a Buoyant Force under a steel anvil floating in a holding tank, causing the anvil to "Defy Gravity". It is actually the relationship between Density and Buoyancy that are creating the division between the Liquid Mercury and the anvil. There is no mythical Gravity pulling anything down. Denser objects sink. Lighter objects rise. The medium they exist in dictates this flow velocity and directional vector. Its Fluid Dynamics.

If you were in a pool of water that had less density than you, you'd sink... not so easily in the saline rich ocean, and even less easily in the saline drenched, Dead Sea. Oil floats on water. It is Density, not Gravity that determines this.

Density is basically how much "stuff" is packed into a particular volume. It's a comparison between an object's mass and its volume. Remember the all-important equation: Density = Mass ÷ Volume. Based on this equation, if the weight (or mass) of something increases but the volume stays the same, then density goes up. Likewise, if the mass decreases but the volume stays the same, then density goes down. Lighter liquids (like water or vegetable oil) are less dense than heavier liquids (like honey or corn syrup) so they float on top of the heavier liquids. The same amount of two different

liquids you used in the container will have different densities because they have different masses. The liquids that weigh more (a higher density) will sink below the liquids that weigh less (a lower density).

Pour equal amounts of Honey, Pancake Syrup, Light Corn Syrup, Dish Soap, Milk, Water, Ice Cube, Vegetable Oil, Baby Oil into a tube. They will separate according to grams per centimeters squared of Density. Gravity plays no role in anything.

By convention, plain water has a density of 1.0 and that's measured in g/cm3 or g/ml. So, a cubic centimeter of water has a mass of 1 gram and fills 1 milliliter of volume. If a substance has a density less than 1.0 g/cm3, it floats on water and one with a density more than 1.0 g/cm3, it sinks in water. The numbers below are based on data from manufacturers for each item. Since each manufacturer has its own "secret" formula, densities may vary slightly from brand to brand for the same product, but these are close.

Gravity: The Unifying Mother of all Space Time Hoaxes

Gravity Is A Hoax and Everything Is Naturally Arranged by Density

If "Gravity" is really a force strong enough to hold the world's oceans, buildings, people and atmosphere stuck to the surface of a spinning ball, then it is impossible for "Gravity" to also simultaneously be weak enough to allow little birds, bugs, and planes to take-off and travel freely unabated in any direction. If "Gravity" is strong enough to curve the massive expanse of oceans around a globular Earth, it would be impossible for fish and other creatures to swim through such forcefully held water.

Everything on our Flat Earth is naturally arranged by Density and Mass.

• Gravity is only a THEORY and NOT a Scientific FACT!

- Gravity cannot be confirmed!
- As a theory, Gravity can never be confirmed, scientists admit this! It is an unfalsifiable claim. No one has tested Gravity on Jupiter!
- Gravity cannot be seen, heard, felt, tasted, or smelt!

If Gravity exists, then:

• How do birds, bats, and insects fly?

• How do airplanes fly?

• Why do balloons float up?

• What makes a hot air balloon keep from falling from the sky?

• How do Zeppelins or Dirigibles float in the sky?

• How does a siphon work?

If Gravity is pulling everything to the center of the Earth, then:

• Why aren't we and everything else crushed to the ground and pulled to the center of the Earth?

I don't have any trouble jumping, do you?

• Why hasn't the Moon (or for that matter the Sun and other "planets") fallen into the Earth?

Gravity cannot exist because it is paradoxical nonsense.

Consider the lies scientists tell us about Gravity:

• Gravity is blind, ruled by random chance and chaos.

Why are all the stars, planets, and moons round instead of many different shapes. How did "blind" Gravity make all the celestial objects perfect spheres?

• Gravity is a great force which permeates the whole universe that we are powerless to resist.

If Gravity is the attraction of two bodies of matter to each other, then:

• Why isn't there an attraction between small and large things, such as a car being pulled toward a mountain, or gnats being pulled toward a person walking in a field?

• Which is it? Is Gravity the attraction of bodies of matter, or a force that pulls matter toward the center of the Earth? Make up your mind!

Gravity and Isostasy

We are told that the Earth's Gravity comes from all its mass. Ok, if Gravity is mass dependent, then: Why doesn't the massive Mount Everest attract birds into an orbit around it? This brings us to the concept of Isostasy.

Isostasy is a concept in the Geology invoked to explain why the Earth's structures do not behave in accordance to Gravity, which states that greater mass should have greater attraction. It is expected that there should be a greater gravitational attraction from mountains than from hills, plateaus, and oceans, since mountains are more massive; yet 'Gravity' readings do not reflect this. The concept of isostasy suggests that below sea level there is a mass deficit beneath the mountains, and is used to explain the disagreement between theory and data.

"Gravitational theory is firmly entrenched as dogma and is unchallengeable and punishable by excommunication and if the heresy great

enough, by permanent expulsion from polite society. It is thus similar to religion in that as a basic premise it cannot be challenged.

So what about isostasy, a theory developed from the observation that surveying plumb-bobs were not attracted by an adjacent mountain? Or that they were not deflected as much as expected. This observation is similar to the laboratory Cavendish experiment to determine big G, the gravitational constant, where bodies have the attractive force measured in the horizontal plane. Herein lies the problem and the manner of thinking adopted when anomalous results are observed.

The reaction to the lack of deflection of the plumb-bob from vertical was to assume that the adjacent mountain had a mass shortfall, rather than question the theory that matter attracts matter. Clearly the lack of attraction observed would lead to one questioning the principle, and not the data, but no, it is the data which are erroneous, and not the principle of gravitation.

This manner of thinking is simply the religious mind at work, for religious minds cannot contradict received authority, here the belief that come what may, matter always attracts matter. This attitude was driven home when I presented the anomalous downhole survey data to the consulting geophysicists, who opined that if the readings are true, then there had to be a gravitating mass above the drill hole and since this is not observed, which is correct, then the data have to be in error, and an instrument malfunction the cause of the anomalous data presented in Gravity Update previously. It never occurred to them that maybe the theory is the problem.

Most scientists hold one or other religious beliefs, and the manner in which they think thus determines how they interpret scientific observations, especially observations that cannot be easily tested in a laboratory. Minds dominated by a belief system inculcated by education, will tend to only see what the belief system asserts, here that matter attracts matter, and hence if the data do not confirm the theory, or belief, then the data have to be in

error. This led to the idea of mountain ranges, or some of them, having deep low density roots into the upper mantle, and the development of Plate Tectonics theory. Except that plates with mountains on them with interpreted under-slab keels should not be able to move, but this inconsistency in the theory seems never a problem, and readily explained as a collision effect between two converging tectonic plates.

Because of this manner of thinking, which leads to the illogical scenario of low density rocks floating in a more dense substrate, ice caps are believed to depress the crust underneath them, and when the ice melts, the crust re-adjusts by expanding upwards. Confirmation of this is the crustal emergence around the Baltic sea due to the melting of the earlier Pleistocene ice age when an ice cap is postulated to have existed in this part of Europe, and also in Canada where crustal uplift is also observed. But just how a rock of density 1 Kg/M^3 can sink into crust of density 2.7Kg/M^3 is explained by the principle of isostasy. This assertion is simply crazy – logical but crazy and came about from misinterpreting the earlier surveying data where the plumb line did not deflect as expected from calculations compensating for the mass of the adjacent mountain.

In both cases, the non-deflecting plumb-line and the anomalous downhole survey data, the mainstream reaction to the discordant data was to reject the data and confirm the supremacy of the belief in gravitation. But if the theory of Gravity is wrong, then a great lot of theory and assumptions become, if not moot, just plain wrong. Retro-calculation of planetary orbits becomes problematical, gravitational accretion becomes a nonsense leading to a rather drastic paradigm shift in the physical sciences. It is tantamount to questioning our cultural world-view, that of the Abrahamic Religions, and that could be a most dangerous enterprise.

One challenge to this world view is being mounted by Tim Cullen at the Malaga Bay Blog, and of course this one has been politically incorrect for

a long time. It is an intellectual battle between the Oriental and Occidental world-views, that of a cyclical orientalism and a linear Occidentalism.

Gravity has replaced God as the prime mover of the Universe. Both are words starting with a capital "G".

On discrepancies, one writer says:

"On the basis of Newtonian Gravity, it might be expected that gravitational attraction over continents, and especially mountains, would be higher than over oceans. In reality, the Gravity on top of large mountains is less than expected on the basis of their visible mass while over ocean surfaces it is unexpectedly high. To explain this, the concept of isostasy was developed: it was postulated that low density rock exists 30 to 100 km beneath mountains, which buoys them up, while denser rock exists 30 to 100 km beneath the ocean bottom. However, this hypothesis is far from confirmation. Physicist Maurice Allais commented: "There is an excess of Gravity over the ocean and a deficiency above the continents. The theory of Isostasy provided only a pseudo explanation of this."

The standard, simplistic theory of isostasy is contradicted by the fact that in regions of tectonic activity vertical movements often intensify Gravity anomalies rather than acting to restore isostatic equilibrium. For example, the Greater Caucasus shows a positive Gravity anomaly (usually interpreted to mean it is overloaded with excess mass), yet it is rising rather than subsiding. "

Geological Society of India

Bouguer Anomalies Over The Continents and Oceans (Archive) in the Journal of the Geological Society of India tells us that the anomalies are greater in the ocean than over the land, which is contrary to Gravity theory.

"Why, in general, the Bouguer Gravity anomalies are negative in continental areas and positive in oceanic areas? Extending the question

further, why do the predominant negative and positive anomalies respectively correspond to the mountain peaks and ocean depths? Although the Bouguer Gravity data are not brought on to an even datum, there is fairly a good inverse correlation of Bouguer anomalies with height/depth as well as seismic data. This obviously indicates the excess mass reflected as Gravity lows and the deficit mass as Gravity highs with respect to the geoid/ellipsoid surface. This is in contrast to the theory of the Gravity field which is proportional to the excess or deficit mass. Mathematically speaking, the observed anomalies are proportional to the vertical gradient of Gravity, indicating excess mass above the geoid as Gravity lows and deficit mass below the geoid as Gravity highs. If this were true, far reaching implications arise in the understanding of the theory and interpretation of Bouguer anomalies. "--
https://wiki.tfes.org/Isostasy

The Cavendish Folly

If Gravity is said to be mass dependent, why are there no experiments to confirm this, except the phony and laughable Cavendish experiment joke?

The **Cavendish Experiment**, performed in 1797–1798 by British scientist Henry Cavendish, was alleged to be the first experiment to measure the force of Gravity between masses in the laboratory. The results of the experiment were used to determine the masses of the Earth and celestial bodies. The Cavendish Experiment is often held up as evidence for the universal attraction of mass, and as a confirmation for Gravity. The experiment involves two spherical lead balls attached to a torsion balance, which is alleged to detect the faint gravitational attraction between the masses.

When institutions have reproduced this experiment with modern methods involving lasers and instruments of the highest precision, however,

the detection of Gravity has been fraught with difficulty, giving erratic results. Oddly, modern repetitions of the Cavendish Experiment tell us that the strength of Gravity in the universe can increase or decrease by over tenfold when observed at different times. [1]

The use of this experiment as demonstration of the universal attraction of mass is further faulted at its premise. This experiment is a matter of observation and interpretation. In this experiment a slight attraction with the force equivalent of the weight of a few cells is observed [2] and conclusions are then made about the strength of Gravity for the entire universe. Those observations are used to estimate the masses of the celestial bodies, rather than using the theory of Gravity and the size of the Earth to determine the amount of attraction which should have been seen in the experiment. It is *assumed* that the attraction seen must originate from the universal attraction of mass rather than any other cause which could cause attraction with the weight of a few cells at close range. Different values seen in the experiment would produce different conclusions for the masses of the Earth and celestial bodies.

Gravity Not a Constant

Scientific American provides an assessment of a large number of Cavendish Experiments conducted by prestigious laboratories and institutions and explains that, unlike other fundamental forces in physics, Gravity cannot be accurately measured.

"Gravity, one of the constants of life, not to mention physics, is less than constant when it comes to being measured. Various experiments over the years have come up with perplexingly different values for the strength of the force of Gravity, and the latest calculation just adds to the confusion.

The results of a painstaking 10-year experiment to calculate the value of "big G," the universal gravitational constant, were published this month—and they're incompatible with the official value of G, which itself comes from

a weighted average of various other measurements that are mostly mutually incompatible and diverge by more than 10 times their estimated uncertainties.

The gravitational constant "is one of these things we should know," says Terry Quinn at the International Bureau of Weights and Measures (BIPM) in Sévres, France, who led the team behind the latest calculation. "It's embarrassing to have a fundamental constant that we cannot measure how strong it is."

In fact, the discrepancy is such a problem that Quinn is organizing a meeting in February at the Royal Society in London to come up with a game plan for resolving the impasse. The meeting's title—"The Newtonian constant of gravitation, a constant too difficult to measure?"—reveals the general consternation. "

Measuring the Very Faint

Physicist Jens Gundlach explains that Gravity is very hard to measure and would require measuring the force equivalent of the weight of a few human cells on two one-kilogram masses that are one meter apart:

"Although Gravity seems like one of the most salient of nature's forces in our daily lives, it's actually by far the weakest, making attempts to calculate its strength an uphill battle. "Two one-kilogram masses that are one meter apart attract each other with a force equivalent to the weight of a few human cells," says University of Washington physicist Jens Gundlach, who worked on a separate 2000 measurement of big G. "Measuring such small forces on kg-objects to 10-4 or 10-5 precision is just not easy. There are a many effects that could overwhelm gravitational effects, and all of these have to be properly understood and taken into account."

There are many effects that could explain the alleged gravitational effects thought to be at play in the Cavendish Experiment: Static attraction, air viscosity, air particles, static drag, natural electromagnetic and dielectric

interactions, inherent inconsistencies the experimental apparatus including the torsion balance, the optical lever, the lead balls Cavendish used (Even though lead is not magnetic, it can interact slightly with magnetic fields.), the quartz fiber and natural Earth tremors can easily overcome or replace the gravitational attraction hypothesis. Additionally, all of these explanations have been tested as real forces and variables by scientific method, whereas Gravity remains an unconfirmed assumption. Then why is Gravity postulated as the reason for Cavendish's results if it is the least confirmed explanation?

I smell agenda and experimental bias.

"This inherent difficulty has caused big G to become the only fundamental constant of physics for which the uncertainty of the standard value has risen over time as more and more measurements are made. "Though the measurements are very tough, because G is so much weaker than other laboratory forces, we still, as a community, ought to do better," says University of Colorado at Boulder physicist James Faller, who conducted a 2010 experiment to calculate big G using pendulums. "

Wildly Erratic

The article explains that the results are wildly erratic.

"Through these dual experiments, Quinn's team arrived at a value of 6.67545 X 10-11 m3 kg-1 s-2. That's 241 parts per million above the standard value of 6.67384(80) X 10-11 m3 kg-1 s-2, which was arrived at by a special task force of the International Council for Science's Committee on Data for Science and Technology (CODATA) (pdf) in 2010 by calculating a weighted average of all the various experimental values. These values differ from one another by as much as 450 ppm of the constant, even though most of them have estimated uncertainties of only about 40 ppm. "Clearly, many of them or most of them are subject either to serious significant errors or grossly underestimated uncertainties," Quinn says "

The values of these sophisticated laboratory experiments differ from one another by as much as 450 ppm of the gravitational constant. The weight of a few cells as compared to the masses involved in the experiments, what they should be measuring, for context, is smaller. The uncertainty for measuring the Gravity of the opposite mass with the equipment should be only about 40 ppm, yet the values observed are far more erratic—over ten times their estimated uncertainties. It is quite a curiosity that the strength of Gravity of our universe would increase or decrease by over tenfold when tested at different times.

The amount of error makes the experiment inaccurate. The effect from Gravity is a small portion of the range seen. The results need to be consistent to pinpoint any particular phenomenon. As stated, there are plenty of forces and effects stronger than the weak Gravity that it might be detecting. If identical experiments cannot replicate results, then it is invalid as a test to demonstrate any one particular cause. Consistency is of prime importance to empirical science. One cannot merely assume that the experiment is detecting a multitude of admittedly stronger effects to cause the inconsistent results, but that Gravity is in there somewhere.

While the ranges discussed are small, so too are those forces which modify the results. Plenty of effects could attract with the "force equivalent of the weight of a few cells". Whatever effects one can argue or imagine is modifying the results could also be creating them as well. One quickly sees the consternation of physicists involved: The 'weight of a few cells' can be caused entirely by a mechanism which is not Gravity. The experiments need to be accurate and consistent for a valid test of a particular phenomenon.

Cannot Be Measured

"Either something is wrong with the experiments, or there is a flaw in our understanding of Gravity," says Mark Kasevich, a Stanford University

physicist who conducted an unrelated measurement of big G in 2007 using atom interferometry. "Further work is required to clarify the situation."

If the true value of big G turns out to be closer to the Quinn team's measurement than the CODATA value, then calculations that depend on G will have to be revised. For example, the estimated masses of the solar system's planets, including Earth, would change slightly. Such a revision, however, wouldn't alter any fundamental laws of physics, and would have very little practical effect on anyone's life, Quinn says. But getting to the bottom of the issue is more a matter of principle to the scientists. "It's not a thing one likes to leave unresolved," he adds. *"We should be able to measure Gravity."*"

The end sentence is plain in its understanding, admitting that they *cannot* measure Gravity.

From a Forbes piece titled ***Scientists Admit, Embarrassingly, We Don't Know How Strong The Force Of Gravity Is*** (Archive) by astrophysicist Ethan Siegel, Ph.D., we read the following about the issue:

While the other fundamental constants are known to precisions of anywhere between 8 and 14 significant digits, uncertainties are anywhere from thousands to billions of times greater when it comes to G.

The gravitational constant of the Universe, G, was the first constant to ever be measured. Yet more than 350 years after we first determined its value, it is truly embarrassing how poorly known, compared to all the other constants, our knowledge of this one is. We use this constant in a whole slew of measurements and calculations, from gravitational waves to pulsar timing to the expansion of the Universe. Yet our ability to determine it is rooted in small-scale measurements made right here on Earth. The tiniest sources of uncertainty, from the density of materials to seismic vibrations across the globe, can weave their way into our attempts to determine it. Until we can do better, there will be an inherent, uncomfortably large uncertainty anywhere

the gravitational phenomenon is important. It's 2018, and we still don't know how strong Gravity actually is."

We are told that, compared to other fundamental constants, the uncertainties with G are thousands to billions of times greater. We are also told that the strength of Gravity for the celestial bodies across the universe are all reliant on this inconsistent experiment.

The article further repeats that the experiments were seeing ranges which were over ten times the expected uncertainties:

"Later that year, experiments that were performed indicated a value that was inconsistently high with those values: 6.674×10^{-11} $N/kg^2 \cdot m^2$. Multiple teams, using different methods, were getting values for G that conflicted with each other at the 0.15% level, more than ten times the previously reported uncertainties. "

Gravity "Oscillates"

Due to the mysterious readings and problems, some are now calling Gravity part of "Dark Energy."

"An oscillating G could be evidence for a particular theory that relates dark energy to a fifth, hypothetical fundamental force, in addition to the four we know – Gravity, electromagnetism, and the two nuclear forces. This force might also cause the strength of Gravity to oscillate, says Padilla. "This result is indeed very intriguing." "

History

According to physicist George T. Gillies the difficulties in measuring G has been a recurring theme in the study of Gravity.

Abstract:

"Incomplete in our knowledge of the absolute value of the Newtonian gravitational constant, G, have come very slowly over the years. Most other constants of nature are known (and some even predictable) to parts per billion, or parts per million at worst. However, G stands mysteriously alone, its history being that of a quantity which is extremely difficult to measure and which remains virtually isolated from the theoretical structure of the rest of physics. Several attempts aimed at changing this situation are now underway, but the most recent experimental results have once again produced conflicting values of G and, in spite of some progress and much interest, there remains to date no universally accepted way of predicting its absolute value "

"The spread in the values of G obtained by the recent high-precision determinations of it attests to the difficulty of the experiments. Interestingly, *the differences in the published results replicates a similar situation that arose almost 140 years ago (Jacobs 1857), and which seems to have repeated itself every few decades since then.* As discussed at length in section 4, determinations of G are fraught with difficulty because of the universality of the gravitational force, its weakness compared to the other fundamental interactions and the sensitive nature of the apparatus used to make the measurements."

"If one were to catalog the tools of precision measurement, an unusually high number of the listings would claim as their genesis the precision measurement of the Newtonian Gravitational Constant, herein simply referred to as "G". These tools would include the torsion balance, the optical lever, the quartz fiber, synchronous detection techniques, ultra-high precision rotations and many others. Yet G stands alone as the only fundamental constant currently known to little better than one part in a thousand although there are three measurements claiming accuracies of one part in ten thousand. In parallel with these efforts to measure the absolute value of G, there has also been a wide variety of experiments aimed at linking

the gravitational force to the other forces of nature. All such efforts to date have had the singularly unique result of demonstrating that Gravity, indeed, stands alone - the last of the great classical mechanisms - in spite of its modernized presentation via general relativity.

Classical gravitational physics has been like this, and foreseeably will continue to be like this. The reason why is that, to this date, no one has succeeded in isolating sufficiently well the gravitational interaction between laboratory masses to the point where other disturbing forces or experimental uncertainties do not dominate the measurement, at least at levels above those at which other phenomena might be expected to occur. "

Addendum

As suggested by the references above; until physics is able to isolate the gravitational interaction between laboratory masses to the point where other disturbing forces do not dominate the measurement, the Cavendish Experiment should be regarded for what it is: An inconsistent experiment which is admittedly disturbed by unknown or unmitigated effects, and which might or might not include "Gravity" in the results seen.

Further, the entire matter is an observation which is used to determine the mass of the Earth and the celestial bodies, as opposed to using the theory of Gravity to create a prediction for the strength of the attraction which should be seen. The first paragraph in the Wikipedia article for the Cavendish Experiment says:

"The Cavendish experiment, performed in 1797–1798 by British scientist Henry Cavendish, was the first experiment to measure the force of Gravity between masses in the laboratory[1] and the first to yield accurate values for the gravitational constant.[2][3] Because of the unit conventions then in use, the gravitational constant does not appear explicitly in Cavendish's work. Instead, the result was originally expressed as the specific

Gravity of the Earth, or equivalently the mass of the Earth. His experiment gave the first accurate values for these geophysical constants."

We see that the experiment was used to determine the Gravity 'constant' and the mass of the Earth. The fact that there is attraction of some level in this short range experiment is quite fallacious to utilize as evidence for the universal attraction of mass. The strength of the attraction in the observation merely tells the experimenter what the strength of g would be for the Earth and celestial bodies according to conventional theory, provided that the theory and mechanism is correct. There is a lack of demonstration that the cause is actually through the universal attraction of mass. The universal attraction of mass is only assumed.

If we were to feel a gust of wind through an open window, should we assume that the wind was caused by any one particular cause according to one particular theory? Plenty of things can cause wind, and there are also plenty of effects and forces which can attract, especially at the slight levels discussed. Measuring the strength of a gust of wind to determine something about the strength or dynamics of a theory about the weather would tell us only about that theory and not about whether the wind seen was actually related to that theory or not. Measuring the strength of a short-range attraction experiment to decide the mass of the Earth and celestial bodies would likewise tell us little about the ultimate cause for that attraction, and would serve only to give a little more insight to theory.

A found attraction somewhere around the force equivalent of the weight of a few cells is considered by popular thought to be an impeachable confirmation for Gravity and the universal attraction of mass. Accordingly, anything which seems to support it does support it, no matter how imprecise, no matter how many other effects may be dominating the results of the experiment, and the absurdity of equivocating the detection of such a slight effect to one cause above any other possibility in nature is put out of the mind and ignored entirely. It is through such inherent fallacy that one

hypothesis is built upon another. Deductions and conclusions are given, but the foundations remain essentially undemonstrated. It is deemed sufficient to observe and interpret rather than to confirm and demonstrate.

Confirmation by Contradiction

As a confirmation by contradiction, similar experiments which have attempted measure Gravity at larger scales than the shorter ranges of the Cavendish Experiment have been unable to detect gravitational influence. There is a reason for why the Cavendish Experiment is cited as one of the very few confirmations of Gravity. It is typically neglected mention in the classroom that a great amount of effort has gone into searching for gravitational variations from either the Earth or external bodies, with negative results.

-- https://wiki.tfes.org/Cavendish_Experiment

Cavendish in a Vacuum

A series of Cavendish experiments, demonstrate quite convincingly that EM Radiation may exert an attractive force on matter. The experiment is surprisingly simple, a Cavendish torsion pendulum setup, the pendulum comprising two 20 g lead spheres, one of the spheres illuminated by infrared radiation. Unambiguous results are obtained when the Cavendish experiment is placed in vacuum. The vacuum in the experiment, 3.4·10-7 mbar, implies that airflow can be completely discarded. Only radiative forces can significantly influence the lead-spheres in vacuum. Therefore, electromagnetic radiation can be confirmed to influence lead in the Cavendish Experiment, thereby not disqualifying EM radiation from the cause of movement in a Cavendish torsion pendulum system.

--https://arxiv.org/pdf/1005.4905.pdf

Our Father Gravity

Our Father Gravity,

Who art in Singularity and Cosmic Expansion, hallowed be thy name.

Thy Event Horizon come,

Thy Cosmic will be done on Earth as it is in the homogeneously isotropic Universe.

Give us this day our daily presuppositions of Space Time Curvature, our daily bread, and forgive us our Enclosed Cosmological trespasses, as we forgive those opposing Einsteinian Relativism who trespass against us.

And lead us not into empirical thinking, logic, or experimentation,

But deliver us from Geocentrists, and all variations of Enclosed Cosmologists.

For thine is the Gravitational Wave, the Mass, the Space, the Time, the Black Hole, the Planck Star, the Dark Matter, and the Dark Energy, The Antichrist Kingdom, and The Power, and The Pantheistic Glory

Forever.

Amen Ra

Gravity...It Gets Me Down

"Gravity is not a "law," it's bullshit created by a knighted Freemason, "Sir" Isaac Newton, trying to explain why people don't fall off the underside of his spinning ball-Earth. Objects denser than the medium surrounding them fall while objects less dense than the medium surrounding them rise. This natural property of physics was well known and understood before Newton came along and piggy-backed his idea of "Gravity".

If you fill a balloon with helium, a substance lighter than the nitrogen, oxygen and other elements which compose the air around it, the balloon will immediately fly upwards. If you fill a balloon with hydrogen, a substance even lighter than helium, the balloon will fly upwards even faster. If you blow a dandelion seed out of your hands, a substance just barely heavier than the air, it will float away and slowly but eventually fall to the ground. And if you drop an anvil from your hands, something much heavier than the air, it will quickly and directly fall straight to the ground. Now, this has absolutely nothing to do with "Gravity." The fact that light things rise up and heavy things fall down is simply a natural property of weight. That is very different from "Gravity." Gravity is a hypothetical magnetic-like force possessed by large masses which Isaac Newton needed to help explain the Heliocentric theory of the universe.

Now, even if Gravity did exist, why would it cause both planets to orbit the Sun and people to stick to the Earth? Gravity should either cause people to float in suspended circular orbits around the Earth, or it should cause the Earth to be pulled and crash into the Sun! What sort of magic is "Gravity" that it can glue people's feet to the ball-Earth, while causing Earth itself to revolve ellipses round the Sun? The two effects are very different, yet the same cause is attributed to both.

"Take the case of a shot propelled from a cannon. By the force of the explosion and the influence of the reputed action of gravitation, the shot forms a parabolic curve, and finally falls to the Earth. Here we may ask, why - if the forces are the same, viz., direct impulse and gravitation - does not the shot form an orbit like that of a planet, and revolve round the Earth? The Newtonian may reply, because the impulse which propelled the shot is temporary; and the impulse which propelled the planet is permanent. Precisely so; but why is the impulse permanent in the case of the planet revolving round the sun? What is the cause of this permanence?" -N. Crossland, "New Principia"

"If the sun is pulling with such power at the Earth and all her sister planets, why do they not fall down upon him?" -A. Giberne, "Sun, Moon, and Stars" (27)

Furthermore, this magnetic-like attraction of massive objects Gravity is purported to have can be found nowhere in the natural world. There is no example in nature of a massive sphere or any other shaped object which by virtue of its mass alone causes smaller objects to stick to or orbit around it! There is nothing on Earth massive enough that it can be shown to cause even a dust-bunny to stick to or orbit around it! Try spinning a wet tennis ball or any other spherical object with smaller things placed on its surface and you will find that everything falls or flies off, and nothing sticks to or orbits it. To claim the existence of a physical "law" without a single practical evidential example is hearsay, not science.

"That bodies in some instances are seen to approach each other is a fact; but that their mutual approach is due to an 'attraction,' or pulling process, on the part of these bodies, is, after all, a mere theory. Hypotheses may be sometimes admissible, but when they are invented to support other hypotheses, they are not only to be doubted but discredited and discarded. The hypothesis of a universal force called Gravitation is based upon, and was indeed invented with a view to support another hypothesis, namely, that the

Earth and sea together make up a vast globe, whirling away through space, and therefore needing some force or forces to guide it in its mad career, and so control it as to make it conform to what is called its annual orbit round the sun! The theory first of all makes the Earth to be a globe; then not a perfect globe, but an oblate spheroid, flattened at the 'poles'; then more oblate, until it was in danger of becoming so flattened that it would be like a cheese; and, passing over minor variations of form, we are finally told that the Earth is pear-shaped, and that the 'elipsoid has been replaced by an apoid!' What shape it may assume next we cannot tell; it will depend upon the whim or fancy of some astute and speculating 'scientist.'" --Lady Blount and Albert Smith, "Zetetic Astronomy"

How is it that "Gravity" is so strong that it can hold all the oceans, buildings and people stuck to the under-side of the ball-Earth, but so weak that it allows birds, bugs, smoke, and balloons to casually evade its grips completely!? How is it that "Gravity" holds our bodies clung to the under-side of the ball-Earth, but yet we can easily raise our legs and arms, walk or jump and feel no such constant downward pulling force? How is it that "Gravity" can cause planets to revolve elliptical orbits around a single center of attraction? Ellipses by nature require two foci, and the force of gravitation would have to regularly increase and decrease to keep planets in constant orbit and prevent pulling them into direct collision courses!" --Eric Dubay

The Medieval Myth Of Gravity

The medieval myth of "Gravity" derives from ONLY an observed rate of fall at the instant an object is released in a vacuum. And where does a vacuum exist in nature? That's right, nowhere, so "Gravity" has absolutely no implication or relevance in the natural, i.e., real, world. So, we drop a block of wood in a vacuum and it falls, right? Well, fill that vacuum with water before removing the air and what happens? That's right, the wood does not fall but stays floating on the water. Does "Gravity," therefore, not function in water?

Is "Gravity" somehow selective, as in the case of the helium balloon that falls except when filled with helium, in the case of the 300-ton ship that floats on the sea as opposed to the 300 tons of rolled steel that sinks to the bottom of the ocean, and the 40-ton aircraft that weighs nothing as soon as it reaches 80 knots and takes off from the ground? How is "Gravity" so selective that it pulls a 40-lb anvil straight down through a pool of water but cannot pull that anvil down through mercury?

"Gravity" is therefore neither consistent nor universal, and therefore it is not a force, but rather, a complete hoax." --Rob Taylor

Gravity and The Vector of Up or Down

Density determines up or down. Gravity is a fiction. Lighter bodies float up if they are lighter than the medium they are in. An anvil falls in air because it is denser than air. An anvil floats in a pool of Mercury DEFYING "GRAVITY ", because there is no such thing as Gravity. It's merely the ratio of the density of Mercury to the steel anvil that causes the anvil to float. Density determines the directional vector up or down. The oceans are denser than air so they sit upon the Earth. Helium balloons defy mighty Gravity because again there is no such thing as Gravity. It's merely that helium is lighter than air, so it floats up. Density and buoyancy. Plus, the Earth's natural electromagnetic dielectric field helps to determine up or down. Magnetic fields can make objects levitate quite easily "defying Gravity ". And toroidal electromagnetic fields effect ALL objects not just metals...also wood, plastic, flesh, bone...everything. Gravity is a Hermetic fantasy imagined by ancient occultists and never confirmed. It still remains a completely non empirical hocus-pocus fantasy.

Newton's Quote: Even Newton Defied Gravity

This quote is from Newton's correspondence with theologian Richard Bentley, who in 1692 delivered a series of sermons on the subject of "A Confutation of Atheism from the Origin and Frame of the World" at St. Martin-in-the-Field. This course of lectures was the first on the evidence of Christianity established by a bequest from Robert Boyle.

In preparing his sermons, Bentley had received Newton's recommendations, in July 1691, for background information from parts of the Principia which had been published about five years earlier. After Bentley gave his oral presentations, but before publishing them, he consulted with Isaac Newton in several letters, clarifying a number of points regarding Gravity and Cosmogony, so that he could be sure the printed version of his lectures gave a correct interpretation of Newton's ideas.

The summation of all those correspondences comes to this quote:

"It is inconceivable that inanimate brute matter should, without the mediation of something else which is not material, operate upon and affect other matter without mutual contact, as it must be, if gravitation in the sense of Epicurus, be essential and inherent in it. And this is one reason why I desired you would not ascribe innate Gravity to me. That Gravity should be innate, inherent, and essential to matter, so that one body may act upon another at a distance through a vacuum, without the mediation of anything else, by and through which their action and force may be conveyed from one to another, is to me so great an absurdity that I believe no man who has in philosophical matters any competent faculty of thinking can ever fall into it.

Gravity must be caused by an agent acting constantly according to certain laws; but whether this agent be material or immaterial, I have left open to the consideration of my readers."

--Sir Isaac Newton: Letters to Bentley, February 1693

https://todayinsci.com/N/Newton_Isaac/NewtonIsaac-GravityQuote800px.htm#google_vignette

When you live in the 16th Century and have absolutely no knowledge of electromagnetic forces but somehow must explain the phenomenon of motion vectors on Earth, what would you call it? Jesuit Agent, Freemason Grand Master, and Alchemist, Sir Issac Newton, deferred to the Alchemical Occult Magic idea of Gravity, of course.

Chapter 5

Michael Toon's Gravity Circus!

IGSN71 Measurements: Assuming Gravity Exits in Order to Confirm Gravity Exits: A Study in Experimental Confirmation Bias

IGSN71 measurements are based upon the assumption that Gravity is real and therefore Michael Toon's entire contest is based upon the player obeying Scientism protocol and Scientism rules to play. Essentially, these deluded pseudoscientists that Michael Toon worships are assuming Gravity exits in order to confirm Gravity exits.

It is a study in Experimental Confirmation Bias since regardless of what vibrations or movements they measure with their Gravimeters, they will simply call it Gravity because that is what they are testing for. If they were testing for electromagnetism, then they would catalogue their readings as confirmation electromagnetism, etc… Experimental Confirmation Bias is a huge problem amongst those studying Gravity because the stakes are so high for them to demonstrate Gravity exist at all costs.

Confirmation Bias

Confirmation Bias is the tendency to search for, interpret, favor, and recall information in a way that confirms or supports one's prior beliefs or values. People display this bias when they select information that supports their views, ignoring contrary information, or when they interpret ambiguous evidence as supporting their existing attitudes. The effect is strongest for

desired outcomes, for emotionally charged issues, and for deeply entrenched beliefs. Confirmation bias cannot be eliminated entirely, but it can be managed, for example, by education and training in critical thinking skills.

Confirmation bias is a broad construct covering a number of explanations.

Biased search for information, biased interpretation of this information, and biased memory recall, have been invoked to explain four specific effects:

1) attitude polarization (when a disagreement becomes more extreme even though the different parties are exposed to the same evidence)

2) belief perseverance (when beliefs persist after the evidence for them is shown to be false)

3) the irrational primacy effect (a greater reliance on information encountered early in a series)

4) illusory correlation (when people falsely perceive an association between two events or situations).

The epistemological cartels behind Gravity, such as The Royal Society of London, as well as other The Masonic fraternities, have a vested interest in Gravity existing as the sole foundational connective tissue and explanation for The Heliocentric Theory, The Big Bang Theory, Evolutionary Theory, as well as their agenda for the certain possibility of alien life.

All their occult science ideologies rest upon the idea that Gravity is real. And so, all institutions of higher learning, private businesses, think tanks, corporations, Hollywood, NASA, etc… under the influence and pressure of epistemological cartels, such as The Royal Society of London, are only funded if they confirm that Gravity is real for the benefit of the agendas of The Scientific Autocracy that funds them.

The Royal Society of London: An Epistemological Cartel of The Scientific Dictatorship

On Michael Toon's website, he supplies a link to a paper called, "The BIPM Measurements of The Newtonian Constant of Gravitation, G", pubksihed by The Royal Society of Great Britain. This paper is a complement to the two short papers published in 2001 and 2013 in which The Royal Society presented the results of the two BIPM determinations of the Newtonian constant of gravitation G.

However, just who is The Royal Society of London, and why do they have so much interest in proving Gravity exits? Let's looks a little deeper into the history of The Royal Society of London.

The Invisible College

Invisible College is the term used for a small community of interacting scholars who often met face-to-face, exchanged ideas and encouraged each other. One group that has been described as a precursor group to the Royal Society of London, consisted of a number of natural philosophers around Robert Boyle. It has been suggested that other members included prominent figures later closely concerned with the Royal Society; but several groups preceded the formation of the Royal Society, and who the other members of this one was is still debated by scholars. Richard S. Westfall distinguishes Hartlib's "Comenian circle" from other groups; and gives a list of "Invisible College" members based on this identification. They comprise: William Petty, Boyle, Arnold Boate and Gerard Boate, Cressy Dymock, and Gabriel Platte. Miles Symner may have belonged to this circle, as well.

The Gresham College Group

The Gresham College Group was a loose collection of scientists in England of the 1640s and 1650s, a precursor to the Royal Society of London,

also. Within a few years of the granting of a charter to the Royal Society in 1662, its earlier history was being written and its roots contested. There is still some debate about the effect of other groups on the way the Royal Society came into being. The composition of those other groups is unclear in parts; and the overall historiography of the early Royal Society is still often regarded as problematic. But the group centered on Gresham College has always been seen as fundamental to the course of events.

Naturalism and The Royal Society of London

The Royal Society, formally The Royal Society of London for Improving Natural Knowledge, is a learned society and the United Kingdom's national academy of sciences. Founded on 28 November 1660, it was granted a royal charter by King Charles II as "The Royal Society". The thing to understand by looking at how The Invisible College, The Gresham College Group, and other groups tuned into The Royal Society is that the core cause was to advance the epistemological view of a material and natural, Godless world. This naturalistic approach to science is based in Rosicrucianism and the esoteric doctrines preserved and exalted within the halls of the Masonic Society. This naturalistic approach to science comes out of a mixture of natural philosophy and occult Hermetic magic.

Further, one cannot divorce the connection between what we today call naturalistic science and occult mystical Hermeticism.. That connection is still very much apparent in modern theoretical science. It is all rooted in magic, which modern scientists like to call science. Spells and incantations are called equations and theorems. Theories and ideas are readily accepted on Faith, with zero empirical confirmation, now. And so, this Royal Society was set up by actual intellectual occultists with the explicit the purpose of controlling the epistemological narrative and disseminating what we today call science, which merely emerged out of what was termed natural philosophy.

The Enlightenment (The Luciferian Endarkenment)

During The Enlightenment, this period of time sees a knowledge explosion enabled by Protestant Reformation Freedoms, but at the same time

there is a surge of involvement in the occult and witchcraft by the wealthy and privileged elite. They turned away from God and turn towards occultism. The Enlightenment is not a positive term but a period of darkening . It was the inverse of spirituality, the rejection of spiritual knowledge in preference for Satanic Luciferian knowledge. The Enlightenment marked the overt and poplar worship of nature and gnosis or knowledge economy. It was out of this darkening of men's minds and the rejection of God the Creator that evolution reappears.

It is very important to understand by the 1660 founding of the Royal Society the Jesuits, and remember this whole story is centered around what the Jesuits have been doing for the last 500 years, the Jesuits had already been there in the background educating the powerful men of Europe for a hundreds of years in their elite schools and colleges. The Jesuits had effectively been shaping the minds of six generations of children through whom they would then control the flow of knowledge and invention through The Royal Society.

The Royal Society is still a gatekeeper of knowledge and works together with other world science bodies to promote only what is beneficial to the Jesuit Vatican cause of world control. All international science ventures are controlled by the Jesuits through The Royal Society through all these interdepartmental government panels, from The Smithsonian Institute and all its subsidiaries. What people are allowed to hear and learn regarding science is all controlled. All the science journals are controlled, and you cannot write whatever you want in a science journal. You must follow the party line and the party line is Evolution.

Creation is not allowed.

The British Royal Society

The new secular church and clergy of the elite originated within the walls of the British Royal Society. The creators of the Royal Society were also members of the Masonic Lodge. According to Baigent, Leigh, and Lincoln in Holy Blood, Holy Grail:

"Virtually all the Royal Society's founding members were Freemasons. One could reasonably argue that the Royal Society itself, at least in its inception, was a Masonic institution – derived, through Andrea's Christian Unions, from the 'invisible Rosicrucian brotherhood'." (Baigent, et al, 144)

Jim Keith makes it clear that the Masonic Lodge 'has been alleged to be a conduit for the intentions of a number of elitist interests' (Keith, Casebook on Alternative 3, 20). In service to the elite, the Royal Society Freemasons would re-sculpt epistemological notions and disseminate propaganda. Jim Keith provides a brief summation of the Royal Society's role in years to come: 'The British Royal Society of the late seventeenth century was the forerunner of much of the media manipulation that was to follow' (Keith, Saucers of the Illuminati, 79).

Before the advent of the British Royal Society, science (i.e., the study of natural phenomena) and theology (i.e., the study of God) were inseparable. The two were not separate repositories of knowledge, but natural correlatives. In Confession of Nature, Gottfried Wilhelm Leibniz established the centrality of God to science. According to Leibniz, the proximate origins of 'magnitude, figure, and motion,' which constitute the 'primary qualities' of corporeal bodies, 'cannot be found in the essence of the body' (de Hoyos).

Freemasons And The Royal Society

Matthew Scanlan Reports On A New Exhibition At Freemasons' Hall, London

On 30 November 1660, Christopher Wren delivered a lecture at one of the regular meetings of natural philosophers who met at the Gresham College in the City of London, and at this meeting it was decided to form a society for the promotion of 'Physico-Mathematical Experimental Learning'.

Two years later, with the invaluable assistance of the Scottish courtier Sir Robert Moray, Charles II granted the new body his personal imprimatur in the form of a charter and so the Royal Society was born.

Today the Royal Society is the United Kingdom's National Academy of Science and as it is currently celebrating its 350th anniversary, the Library and Museum of Freemasonry, London, are staging a special exhibition which focuses upon the extraordinary number of Freemasons who have been Fellows of this august body since its inception.

The relationship between the Royal Society and Freemasonry goes back to its earliest days in Restoration London, when Sir Robert Moray – the earliest known non-stonemason to have joined a masonic lodge in England – was the Society's first interim President.

Similarly, another Fellow of the Society was the English antiquary Elias Ashmole, who had famously been made a Freemason at Warrington, then in Lancashire, on 16 October 1646.

In the early eighteenth century, the unofficial relationship between the two associations strengthened when many Fellows of the Royal Society sought membership of a masonic lodge and a significant number were also closely involved with the development of the new grand lodge. Fellows such as Dr. John Theophilus Desaguliers, a noted Newtonian experimentalist and Curator of the Royal Society, who served as both Grand Master (1719-20) and Deputy Grand Master (1723, 1725-7) of the Premier Grand Lodge. While another influential mason, Martin Folkes, not only served as Deputy Grand Master of the Grand Lodge (1724-25), but he subsequently went on to become President of the Royal Society in 1741, a position he held for nine years.

Some lodges also provided a forum where scientific lectures and demonstrations could be held, a practice that may well have strengthened the ties between the two organizations, albeit unofficially. And ever since this

time, hundreds of Royal Society Fellows have belonged to the Craft, including several royals such as King George IV, Oscar I of Sweden and Norway, the Duke of Sussex (Queen Victoria's uncle and the first grand master of the United Grand Lodge of England), and the current Grand Master, H.R.H. the Duke of Kent.

Other notables have included the Prime Ministers, Thomas Pelham-Holles, 1st Duke of Newcastle, George Canning and Sir Winston Churchill; the philosophers, Helvetius, Montesquieu and Voltaire; the scientists, Benjamin Franklin, Erasmus Darwin (grandfather of Charles) and Sir Joseph Banks; the explorers, James Bruce and Sir Charles Warren; the writer, Edward Gibbon, the architect, Robert Adam, and founder of Singapore, Sir Stamford Raffles.

However, the names of several masonic Fellows appear to stand out from the rest in that they have helped to significantly shape the world as we know it today. These include:

James Watt (1736-1819)

Scottish engineer and inventor who started out as a mathematical instrument maker at the University of Glasgow, but who went on to invaluably confirm Thomas Newcomen's engine by introducing a separate steam condenser.

Watt subsequently obtained patents for the expansion principle, parallel motion linkage, the double-acting engine, the centrifugal governor, and a smokeless furnace. Today he is chiefly remembered for giving his name to the unit of power, the watt, and is widely viewed as the mechanical engineer whose inventions helped to bring about the Industrial Revolution. He was elected a Fellow of the Royal Society (FRS) on 24 November 1785.

Watt was initiated in a Scottish Lodge in 1763.

Edward Jenner (1749-1823)

English physician who discovered the vaccination after developing the idea that a small amount of the skin disease cowpox could help protect against smallpox, and in 1796 he successfully demonstrated his theory on an eight-year old boy. The vaccination was initially opposed by the medical establishment, although it was soon adopted and used in many parts of the world. Jenner spent the rest of his life promoting his discovery and Parliament rewarded him with two sizeable grants; Napoleon even had a medal struck in his honour. He was elected FRS on 26 February 1789.

Jenner was initiated in Lodge of Faith and Friendship No. 449, which met in his birth-town of Berkeley, Gloucestershire (sometime before December 1802), and he went on to serve as its Worshipful Master (WM) in 1812; he was also exalted in the Royal Arch in 1804. Following his death the Gloucestershire Freemasons commissioned a statue of him, which today stands near to the great west door of Gloucester Cathedral.

Colonel George Everest (1790-1866)

Mount Everest was named after Sir George Everest, a Welsh military engineer, surveyor and geographer who became Surveyor-General of India in 1830. The mountain was named in his honour despite objections from Sir George himself. He was elected FRS on 8 March 1827.

Sir George Everest is thought to have been initiated in Neptune Lodge No. 441, Penang (date unknown), and he subsequently joined the Prince of Wales's Lodge No. 493 (now No. 259), on 20 February 1829.

Sir Alexander Fleming (1881-1955)

Scottish bacteriologist and Nobel Prize Winner who discovered penicillin. After serving as Captain in the Royal Army Medical Corps during the First World War, Fleming worked at St. Mary's Hospital, Paddington, where he pioneered the use of anti-typhoid vaccines on humans and Salvarsan against syphilis. In 1928 he discovered Penicillin, for which he later shared the Nobel Prize for Medicine in 1945. He was elected FRS on 18 March 1943.

Fleming was initiated in Sancta Maria Lodge No. 2682, in 1909 and was a member of the Royal Arch. He joined two London lodges: London Scottish Rifles No. 2310, and Misericordia Lodge No. 3286, serving as its Master in 1935.

In 1942 he was promoted Senior Grand Deacon and Past Grand Sojourner, and six years later he was made Past Junior Grand Warden and Past Grand Scribe Nehemiah.

Sir Edward Victor Appleton (1892-1965)

English physicist and Nobel Prize winner, whose work on the Ionosphere led to the development of radar. Educated at St. John's College, Cambridge, Appleton was appointed Professor at the universities of London

and Cambridge respectively, became Secretary for the Department of Scientific and Industrial Research (1939), and Vice-Chancellor of Edinburgh University (1949). In 1947 he won the Nobel Prize for Physics for his work on the Ionosphere and for revealing the existence of a layer of electrically charged particles in the upper atmosphere (the Appleton layer), which plays a crucial part in distant wireless communication and radar. He was elected FRS on 12 May 1927.

Appleton was initiated on 25 April 1922 in Isaac Newton Lodge No. 859, Cambridge, and he was raised on 20 October the same year. He was not active in the craft and resigned on 30 September 1925.

Charles Samuel Myers (1873-1946)

English pioneer psychologist who coined the term 'shell shock'. Myers was educated at Cambridge, University and St. Bartholomew's Hospital, London, before embarking on an anthropological expedition to the Torres Strait. He subsequently became Professor of experimental psychology at King's College London (1906-9), raised funds for the first experimental laboratory specifically designed for Psychology at Cambridge (1912), and was appointed consultant psychologist to the British army in France, where he promoted the idea that shell shock was a treatable condition. He later became the first President of the British Psychological Society and he was elected FRS on 6 May 1935.

Myers was initiated on 5 March 1895 in Isaac Newton Lodge No. 859, Cambridge, and raised on 28 May. A keen mason, he joined Rahere Lodge No. 2546, London, and Alma Mater Lodge No. 1492, Cambridge, of which he became Master in 1908, and he also founded two lodges: Caius Lodge No.

3355, (Master in 1919) and Cantabrigia Lodge No. 3532, Cambridge. In 1937 he was appointed both Past Senior Grand Deacon and Past Grand Sojourner.

William Halse Rivers (1864-1922)

English anthropologist and psychiatrist. Educated at London University and St. Bartholomew's Hospital, Rivers became the youngest graduate in the history of the hospital, and like Samuel Myers (see above) he joined the Cambridge anthropological expedition to the Torres Strait, and later travelled to, and developed an interest in, Melanesia. During the First World War he was commissioned Captain in the Royal Army Medical Corps and was instrumental in developing techniques to heal shell-shocked soldiers. One notable officer in his care was the celebrated war poet Siegfried Sassoon, who thirty years later wrote: 'I should like to meet Rivers in the "next world".' He was elected FRS on 7 May 1908.

Rivers was initiated on 27 February 1909 and raised in the October of that year in Alma Mater Lodge No. 1492, Cambridge.

Enrico Fermi (1901-1954)

Italian nuclear physicist and Nobel Prize Winner. Born in Rome and educated at the Universities of Pisa, Göttingen and Leiden, Fermi was appointed Professor of Theoretical Physics at the University of Rome (1927) and for the next six years he worked on a semi-quantitative method of calculating atomic particles. In 1938 he was awarded the Nobel Prize for Physics in Stockholm, but fearing for the safety of his Jewish wife in Fascist Italy he emigrated to the United States. There he was appointed Professor of Physics at Columbia University, New York (1939-42) and successfully

directed the first controlled nuclear chain reaction in Chicago on 2 December 1942. He subsequently became a leading member of the wartime Manhattan Project which worked on the development of nuclear energy and the atomic bomb, but later argued against the development of the hydrogen bomb. The element fermium is named after him. He was elected FRS on 27 April 1950.

Fermi became a member of Adriano Lemmi Lodge, Rome, in 1923, which was registered with the Gran Loggia d'Italia di Piazza del Gesu.

https://gilavalleylodge9.wordpress.com/2010/06/27/freemasons-and-the-royal-society/

Gravity and Gravimetry and The International Gravity Standardization Net 1971 (I.G.S.N.71)

By including multiple peer reviewed scientific papers (the gate keepers of Scientism) which destroy the application of Gravimeter readings, we begin to understand that Gravimeter readings are, essentially, just another manifestation of Scientism hoax. The Heliocentric Model has no other justification for its Gravity hypothesis after the misapplication of Gravimeter readings is revealed, which leads swiftly to the Masonic origins of Gravity .

The International Gravity Standardization Net 1971 (I.G.S.N.71) consists of a worldwide network, consisting of 24,000 gravimeter, 1,200 pendulum and 10 absolute measurements collected over twenty years was adjusted by a small Working Group of the International Association of Geodesy. The concept differs from that of earlier Gravity reference systems in that datum is determined not by an adopted value at a single station, but by

the Gravity values for 1854 stations obtained from a single least squares adjustment of absolute, pendulum and gravimeter data. The use and maintenance of the system is discussed.

For many years, there has been a recognized discrepancy between the accuracies of absolute Gravity determination and the hitherto valid Gravity reference system of the International Association of Geodesy (IAG), the International Gravity Standardization Net 1971 (IGSN71). Scientists from metrology and geosciences agreed on a proposal to base a new absolute Gravity reference upon repeated instrument comparisons under metrological rules for traceability to SI quantities.

Gravimetry

Gravimetry is the measurement of the strength of a gravitational field. Gravimetry may be used when either the magnitude of a gravitational field or the properties of matter responsible for its creation are of interest.

Gravimeters

There are two types of gravimeters: Absolute and Relative:

1. Absolute gravimeters measure the local Gravity in absolute units (Gal). Absolute gravimeters are compact (Autograv CG-5 model) and used in the field. They work by directly measuring the acceleration of a mass during freefall in a vacuum. Absolute Gravity meters are by definition calibrated instruments that measure Gravity in natural units m s− 2 traceable to metrological standards. The first absolute Gravity meters were pendulums, but these were eventually replaced by measurements of freely falling test masses in a vacuum. The most accurate instruments currently track a falling mirror with a laser interferometer. In the future, these instruments may become smaller by replacing the falling mirrors with atoms.

2. Relative gravimeters are extremely sensitive, specially assembled, spring-based instruments carrying a fixed mass (m). The principle is that the changes in Gravity will result in a change in weight of fixed mass g(m + δg) with change of location. Thus the length of the spring will differ slightly (Fig. 6.9) with change of location. The spring extension is recorded by suitable optical, mechanical, or electrical amplifications with high precision.

The gravimeter is calibrated at regular intervals at a base station where the absolute value of Gravity is known. Absolute Gravity values at survey stations are obtained with reference to the International Gravity Standardization Network. Relative Gravity meters are typically characterized by a mass on some type of spring support. Relative Gravity meters must be calibrated to determine the scale factor that converts spring stretch into equivalent force and finally into Gravity. Both types of Gravity meters are useful for measuring Gravity at a point near the surface of the Earth or at many points over a survey region. These measurements are useful for commercial resource exploration and management. They can also be used to determine the shape of the Earth's Gravity field, which in turn defines the shape of the Earth. Gravity measurements repeated over time can be useful to look for changes in subsurface density or even to help understand problems of global sea-level rise or the melting of the ice sheets.

A gravimeter is an instrument used to measure gravitational acceleration. Every mass has an associated gravitational potential. The gradient of this potential is a force. A gravimeter measures this gravitational force. The first gravimeters were vertical accelerometers, specialized for measuring the constant downward acceleration of Gravity on the Earth's surface. The Earth's vertical Gravity varies from place to place over the surface of the Earth by about ±0.5%. It varies by about ±1000 nm/s2 (nanometers per second squared) at any location because of the changing positions of the sun and moon relative to the Earth.

The change from calling a device an "accelerometer" to calling it a "gravimeter" occurs at approximately the point where it has to make corrections for Earth tides.

Though similar in design to other accelerometers, gravimeters are typically designed to be much more sensitive. Their first uses were to measure the changes in Gravity from the varying densities and distribution of masses inside the Earth, from temporal "tidal" variations in the shape and distribution of mass in the oceans, atmosphere and Earth.

Accelerometer

An accelerometer is a tool that measures proper acceleration. Proper acceleration is the acceleration (the rate of change of velocity) of a body in its own instantaneous rest frame; this is different from coordinate acceleration, which is acceleration in a fixed coordinate system. For example, an accelerometer at rest on the surface of the Earth will measure an acceleration due to Earth's Gravity, straight upwards (by definition) of g ≈ 9.81 m/s2. By contrast, accelerometers in free fall (falling toward the center of the Earth at a rate of about 9.81 m/s2) will measure zero.

Gravimeters can detect vibrations and Gravity changes from human activities. Depending on the interests of the researcher or operator, this might be counteracted by integral vibration isolation and signal processing.

The resolution of gravimeters can be increased by averaging samples over longer periods. Fundamental characteristics of gravimeters are the accuracy of a single measurement (a single "sample"), and the sampling rate (samples per second).

For a small body, general relativity predicts gravitational effects indistinguishable from the effects of acceleration by the equivalence principle. Thus, gravimeters can be regarded as special-purpose accelerometers. Many

weighing scales may be regarded as simple gravimeters. In one common form, a spring is used to counteract the force of Gravity pulling on an object. The change in length of the spring may be calibrated to the force required to balance the gravitational pull. The resulting measurement may be made in units of force (such as the newton), but is more commonly made in units of gals or cm/s2.

Researchers use more sophisticated gravimeters when precise measurements are needed. When measuring the Earth's gravitational field, measurements are made to the precision of microgals to find density variations in the rocks making up the Earth. Several types of gravimeters exist for making these measurements, including some that are essentially refined versions of the spring scale described above. These measurements are used to define Gravity anomalies.

Commercial Absolute Gravimeters

Gravimeters for measuring the Earth's Gravity as precisely as possible, are getting smaller and more portable. A common type measures the acceleration of small masses free falling in a vacuum, when the accelerometer is firmly attached to the ground. The mass includes a retroreflector and terminates one arm of a Michelson interferometer. By counting and timing the interference fringes, the acceleration of the mass can be measured. A more recent development is a "rise and fall" version that tosses the mass upward and measures both upward and downward motion. This allows cancellation of some measurement errors, however "rise and fall" gravimeters are not yet in common use. Absolute gravimeters are used in the calibration of relative gravimeters, surveying for Gravity anomalies (voids), and for establishing the vertical control network.

Atom interferometric and atomic fountain methods are used for precise measurement of the Earth's Gravity, and atomic clocks and purpose-built instruments can use time dilation (also called general relativistic)

measurements to track changes in the gravitational potential and gravitational acceleration on the Earth.

The term "absolute" does not convey the instrument's stability, sensitivity, accuracy, ease of use, and bandwidth. So it and "relative" should not be used when more specific characteristics can be given.

Relative Gravimeters

The most common gravimeters are spring-based. They are used in Gravity surveys over large areas for establishing the figure of the geoid over those areas. They are basically a weight on a spring, and by measuring the amount by which the weight stretches the spring, local Gravity can be measured. However, the strength of the spring must be calibrated by placing the instrument in a location with a known gravitational acceleration.

The current standard for sensitive gravimeters are the superconducting gravimeters, which operate by suspending a superconducting niobium sphere in an extremely stable magnetic field; the current required to generate the magnetic field that suspends the niobium sphere is proportional to the strength of the Earth's gravitational acceleration. The superconducting gravimeter achieves sensitivities of 10–11 m·s−2 (one nanogal), approximately one trillionth (10−12) of the Earth surface Gravity. In a demonstration of the sensitivity of the superconducting gravimeter, Virtanen (2006), describes how an instrument at Metsähovi, Finland, detected the gradual increase in surface Gravity as workmen cleared snow from its laboratory roof.

The largest component of the signal recorded by a superconducting gravimeter is the tidal Gravity of the sun and moon acting at the station. This is roughly ±1000 nm/s2 (nanometers per second squared) at most locations. "SGs", as they are called, can detect and characterize Earth tides, changes in the density of the atmosphere, the effect of changes in the shape of the surface of the ocean, the effect of the atmosphere's pressure on the Earth,

changes in the rate of rotation of the Earth, oscillations of the Earth's core, distant and nearby seismic events, and more.

Many broadband, three axis, seismometers in common use are sensitive enough to track the sun and moon. When operated to report acceleration, they are useful gravimeters. Because they have three axes, it is possible to solve for their position and orientation, by either tracking the arrival time and pattern of seismic waves from Earthquakes, or by referencing them to the sun and moon tidal Gravity.

Mass

Mass is both a property of a physical body and a measure of its resistance to acceleration (rate of change of velocity with respect to time) when a net force is applied. An object's mass also determines the strength of its gravitational attraction to other bodies.

The SI base unit of mass is the kilogram (kg). In physics, mass is not the same as weight, even though mass is often determined by measuring the object's weight using a spring scale, rather than balance scale comparing it directly with known masses. An object on the Moon would weigh less than it does on Earth because of the lower Gravity, but it would still have the same mass. This is because weight is a force, while mass is the property that (along with Gravity) determines the strength of this force.

Weight

Some standard textbooks define weight as a vector quantity, the gravitational force acting on the object. Others define weight as a scalar quantity, the magnitude of the gravitational force. Yet others define it as the magnitude of the reaction force exerted on a body by mechanisms that

counteract the effects of gravity: the weight is the quantity that is measured by, for example, a spring scale. Thus, in a state of free fall, the weight would be zero. In this sense of weight, terrestrial objects can be weightless: ignoring air resistance, the famous apple falling from the tree, on its way to meet the ground near Isaac Newton, would be weightless.

The unit of measurement for weight is that of force, which in the International System of Units (SI) is the newton. For example, an object with a mass of one kilogram has a weight of about 9.8 newtons on the surface of the Earth, and about one-sixth as much on the Moon. Although weight and mass are scientifically distinct quantities, the terms are often confused with each other in everyday use (i.e. comparing and converting force weight in pounds to mass in kilograms and vice versa).

We manipulate electromagnetism every day, and hence know of its existence. Your car stereo speakers are based upon electromagnetic principles. However, we never manipulate Gravitational fields or use Gravity in any practical engineering applications ever, since it does not exist. We manipulate weight, but weight, as was stated, is the difference between the dielectric displacement within a mass and the dielectric displacement outside the mass in the Aetheric wind creates a DOWN-FORCE in the direction of the negative polarity, as the "Aetheric wind" "blows" through a mass."

Weight more specifically is:

- Location Specific
- Medium Specific
- Vector Specific
- Magnitude Specific
- Phase Specific
- Field Coherency Specific

Dielectric Displacement and The Downward Vector

In electromagnetism, a dielectric (or dielectric material or dielectric medium) is an electrical insulator that can be polarized by an applied electric field. When a dielectric material is placed in an electric field, electric charges do not flow through the material as they do in an electrical conductor, because they have no loosely bound, or free, electrons that may drift through the material, but instead they shift, only slightly, from their average equilibrium positions, causing dielectric polarization. Because of dielectric polarization, positive charges are displaced in the direction of the field and negative charges shift in the direction opposite to the field (for example, if the field is moving parallel to the positive x axis, the negative charges will shift in the negative x direction). This creates an internal electric field that reduces the overall field within the dielectric itself. If a dielectric is composed of weakly bonded molecules, those molecules not only become polarized, but also reorient so that their symmetry axes align to the field.

Electrostatics of Dielectrics: Dielectrics and Directional Polarizability

There are two large classes of substances: conductors and insulators (or dielectrics). In contrast to metals where charges are free to move throughout the material, in dielectrics all the charges are attached to specific atoms and molecules. These charges are known as bound charges. These charges are able, however, to be displaced within an atom or a molecule. Such microscopic displacements are not as dramatic as the rearrangement of charge in a conductor, but their cumulative effects account for the characteristic

behavior of dielectric materials. When an external electric field is applied to a dielectric material this material becomes polarized, which means that acquires a dipole moment.

This property of dielectrics is known as polarizability. Basically, polarizability is a consequence of the fact that molecules, which are the building blocks of all substances, are composed of both positive charges (nuclei) and negative charges (electrons). When an electric field acts on a molecule, the positive charges are displaced along the field, while the negative charges are displaced in a direction opposite to that of the field. The effect is therefore to pull the opposite charges apart, i.e., to polarize the molecule.

-- https://unlcms.unl.edu/cas/physics/tsymbal/teaching/EM-913/section4-Electrostatics.pdf

The Downward Force and Electrostatic Fields in Matter

A neutral atom, placed in an external electric field, will experience no net force. However, even though the atom as a whole is neutral, the positive charge is concentrated in the nucleus (radius = 10-14 m) while the negative charge forms an electron cloud (radius = 10-10 m) surrounding the nucleus (see Figure 4.1). The nucleus of the atom will experience a force pointing in the same direction as the external electric field (to the right in Figure 4.1) and of magnitude qEext. The negatively charged electron cloud will experience a force of the same magnitude, but pointed in a direction opposite to the direction of the electric field. As a result of the external force, the nucleus will move in the direction of the electric field until the external force on it is canceled by the force exerted on the nucleus by the electron cloud.

And so, we definitely have both force and vector components to matter, based solely upon matter's atomic structure, as opposed to emanating

from any ferrous magnetic properties that may seem improbable with regard to human bodies.

--https://unlcms.unl.edu/cas/physics/tsymbal/teaching/EM-913/section4-Electrostatics.pdf

Weight vs. Mass

In everyday usage, mass and "weight" are often used interchangeably. For instance, a person's weight may be stated as 75 kg. In a constant gravitational field, the weight of an object is proportional to its mass, and it is unproblematic to use the same unit for both concepts.

But because of slight differences in the strength of the Earth's gravitational field at different places, the distinction becomes important for measurements with a precision better than a few percent, and for places far from the surface of the Earth, such as in space or on other planets. Conceptually, "mass" (measured in kilograms) refers to an intrinsic property of an object, whereas "weight" (measured in newtons) measures an object's resistance to deviating from its natural course of free fall, which can be influenced by the nearby gravitational field. No matter how strong the gravitational field, objects in free fall are weightless, though they still have mass.

The Fundamental Forces of The Standard Model

All of the known forces of the universe are classified into four fundamental interactions:

1) The Strong Force acts only at very short distances, and is responsible for the interactions between subatomic particles, including nucleons and compound nuclei.
2) Likewise, The Weak Force acts only at very short distances, and is responsible for the interactions between subatomic particles, including nucleons and compound nuclei.
3) The Electromagnetic Force acts between electric charges.
4) The Gravitational Force acts between masses.

All other forces in nature derive from these four fundamental interactions. For example, friction is a manifestation of the electromagnetic force acting between atoms of two surfaces, and the Pauli exclusion principle, which does not permit atoms to pass through each other. Similarly, the forces in springs, modeled by Hooke's law, are the result of electromagnetic forces and the Pauli exclusion principle acting together to return an object to its equilibrium position. Centrifugal forces are acceleration forces that arise simply from the acceleration of rotating frames of reference.

The fundamental theories for forces developed from the unification of different ideas. For example, Sir Isaac Newton unified, with his universal theory of gravitation, the force responsible for objects falling near the surface of the Earth with the force responsible for the falling of celestial bodies about the Earth (the Moon) and around the Sun (the planets). Michael Faraday and James Clerk Maxwell demonstrated that electric and magnetic forces were unified through a theory of electromagnetism.

In the 20th century, the development of quantum mechanics led to a modern understanding that the first three fundamental forces (all except Gravity) are manifestations of matter (fermions) interacting by exchanging virtual particles called gauge bosons. This Standard Model of particle physics assumes a similarity between the forces and led scientists to predict the unification of the weak and electromagnetic forces in electroweak theory, which was subsequently confirmed by observation. The complete formulation

of the Standard Model predicts an as yet unobserved Higgs mechanism, but observations such as neutrino oscillations suggest that the Standard Model is incomplete. A Grand Unified Theory that allows for the combination of the electroweak interaction with the strong force is held out as a possibility with candidate theories such as supersymmetry proposed to accommodate some of the outstanding unsolved problems in physics. Physicists are still attempting to develop self-consistent unification models that would combine all four fundamental interactions into a theory of everything. Einstein tried and failed at this endeavor, but currently the most popular approach to answering this question is string theory.

Gal (unit)

The gal (symbol: Gal), sometimes called Galileo after Galileo Galilei, is a unit of acceleration sometimes used in gravimetry. The gal is defined as 1 centimeter per second squared (1 cm/s2). The milligal (mGal) and microgal (μGal) are respectively one thousandth and one millionth of a gal.

The gal is not part of the International System of Units (known by its French-language initials "SI"). In 1978 the CIPM decided that it was permissible to use the gal "with the SI until the CIPM considers that [its] use is no longer necessary". However, use of the gal is deprecated by ISO 80000-3:2006.

The gal is a derived unit, defined in terms of the centimeter–gram–second (CGS) base unit of length, the centimeter, and the second, which is the base unit of time in both the CGS and the modern SI system. In SI base units, 1 Gal is equal to 0.01 m/s2.

The acceleration due to Earth's Gravity (see standard Gravity) at its surface is 976 to 983 Gal, the variation being due mainly to differences in latitude and elevation. Mountains and masses of lesser density within the Earth's crust typically cause variations in gravitational acceleration of tens to

hundreds of milligals (mGal). The Gravity gradient (variation with height) above Earth's surface is about 3.1 μGal per centimeter of height (3.1×10^{-6} s^{-2}), resulting in a maximal difference of about 2 Gal (0.02 m/s2) from the top of Mount Everest to sea level.

Unless it is being used at the beginning of a sentence or in paragraph or section titles, the unit name gal is properly spelled with a lowercase g. As with the torr and its symbol, the unit name (gal) and its symbol (Gal) are spelled identically except that the latter is capitalized.

--Wikipedia

World Geodetic System 84

The World Geodetic System (WGS) is a standard for use in cartography, geodesy, and satellite navigation including GPS. This standard includes the definition of the coordinate system's fundamental and derived constants, the normal Gravity Earth Gravitational Model (EGM), a description of the associated World Magnetic Model (WMM), and a current list of local datum transformations.

The latest revision is WGS 84 (also known as WGS 1984, EPSG:4326), established and maintained by the United States National Geospatial-Intelligence Agency since 1984, and last revised in 2014. Earlier schemes included WGS 72, WGS 66, and WGS 60. WGS 84 is the reference coordinate system used by the Global Positioning System.

Measurement of Newton's Constant Using a Torsion Balance with Angular Acceleration Feedback

We measured Newton's gravitational constant G using a new torsion balance method. Our technique greatly reduces several sources of uncertainty compared to previous measurements: (1) it is insensitive to anelastic torsion fiber properties; (2) a flat plate pendulum minimizes the sensitivity due to the pendulum density distribution; (3) continuous attractor rotation reduces background noise.

We obtain G = (6.674215 +- 0.000092)x10^-11 m^3kg^-1s^-2; the Earth's mass is, therefore, M = (5.972245 +- 0.000082)x10^24 kg and the Sun's mass is M = (1.988435 +- 0.000027)x10^30kg.

https://arxiv.org/abs/gr-qc/0006043

Assuming Heliocentricity: Distance to the Center of the Earth

The Equation with Geoid Height Adjustment

This is the explicit equation to determine the distance of any point on, below, or above the surface of the Earth to the center of the Earth.

This equation uses the WGS 84 ellipsoid as it is the most current for defining the oblate spheroid shape of the Earth. This ellipsoid defines nominal (mean) sea level for the world by way of the two ellipse parameters a and b, the semimajor and semi minor axes respectively.

The Equation

D = f(Φ,Z,G) =

{(a4cos2Φ+ b4sin2Φ)/(a2cos2Φ + b2sin2Φ) + 2(Z + G)(a2cos2Φ + b2sin2Φ)½ + (Z + G)2}½

or, in a different HTML format... (if this doesn't show square root symbols, try another browser or just use the equation above)

D = f(Φ,Z,G) =

a 4 cos 2 Φ + b 4 sin 2 Φ a 2 cos 2 Φ + b 2 sin 2 Φ + 2 (Z+G) a 2 cos 2 Φ + b 2 sin 2 Φ + (Z+G) 2

where,

D is the distance to the Center of the Earth

Φ is the latitude (the angle measured north or south from the equator)

Z is the height above sea level (i.e., the elevation of the point on the Earth, such as a summit)

G is the geoid height above or below the ellipsoid (the user must also know the longitude of the point in question)

a is the semimajor axis (the equatorial diameter of the Earth)

b is the semi minor axis (the pole-to-pole diameter)

The units must be consistent across the equation. If Z is in meters, a, b, and G must be in meters. If Z is in feet, a, b, and G must be in feet.

The WGS 84 ellipsoid defines a and b as:

a = 6,378,137.000 meters = 20,925,646.3255 ft

b = 6,356,752.314 meters = 20,855,486.5945 ft

The equation will solve for all zero (on the equator), positive (Northern Hemisphere), and negative (Southern Hemisphere) latitude angles, Φ, within the range of +90 to -90 degrees; positive and negative values for longitude, λ, within the range of -360 + 360 degrees; and for zero, positive, and negative values of elevation Z and geoid height G. The geoid height must be obtained from an outside source (see below).

Microsoft Excel Format

D = SQRT((A1^4*(COS(L1*PI()/180))^2+B1^4*(SIN(L1*PI()/180))^2)/(A1^2*(COS(L1*PI()/180))^2+B1^2*(SIN(L1*PI()/180))^2)+2*(Z1+G1)*SQRT(A1^2*(COS(L1*PI()/180))^2+B1^2*(SIN(L1*PI()/180))^2)+(Z1+G1)^2)

where,

A1 = ellipse parameter a

B1 = ellipse parameter b

L1 = latitude, Φ, in degrees

Z1 = summit elevation above (or below) mean sea level

G1 = geoid height above or below the ellipsoid (i.e., positive or negative).

The cell numbers A1, B1, L1, Z1, and G1 are used as an example here only. Also, any units of measure will work (meters, feet, miles,…) as long as they are consistent across the equation.

The Geoid Height

The geoid height value, G, can be obtained from tabulated data that can be downloaded from the Internet or from websites that will do the calculation for you.

Bilinear interpolation (wiki) is used to obtain the geoid height at a discrete, user-input latitude and longitude that falls inside the square formed by four grid points. There are more sophisticated interpolation techniques that are more accurate such as Lagrangian, bicubic, or spline but these have not been used here due to their complexity.

Caveats

Two caveats to this equation must be addressed:

The first is that the WGS 84 ellipsoid defines mean sea level for the world over (the "ellipsoid") and therefore does not concern itself with continental bulges and their effect on the Earth's gravitational field. These bulges can induce a non-mean sea level (see here). That is, sea level in the region around the land mass can actually be a few tens of meters higher than the nominal sea level of the Earth. Fortunately, gravimetric geoid height evaluation projects have taken place at least three times since the 1980s. This data can be used to calculate the geoid height around the world to within a fair enough accuracy for purposes of comparing summits across the globe.

The second is for summits that have not been measured for a long time, they may have compared to a sea level that was considered the standard prior to WGS 84 resetting it (i.e., using an older geodetic system, such as WGS 66, that was in effect when the summit was last measured). The differences in semimajor and semi minor axes between these two surveys should be taken into account and the height of the summit adjusted accordingly. Without intimate knowledge of when a summit or summits were last surveyed, it may be impossible to know how to make this adjustment.

We can take it on faith at this moment that the adjustment is negligible. Also, it is not really determinate, in my view, when looking at a map (or using an online mapping tool such as Acme Mapper), if the elevations shown thereon are in reference to the most current geoid, or even an older geoid, or if they were referenced to a sea level that is sufficiently distant from the summit such that that sea level point itself would have a significantly different geoid height than the summit's geoid height. In short, when old survey methods were used to triangulate the height of a summit, what was their initial sea level datum? Is this known? Can it be determined?

--Paul Klenke

https://www.summitpost.org/distance-to-the-center-of-the-Earth/849764

Force

In physics, a force is an influence that can change the motion of an object. A force can cause an object with mass to change its velocity (e.g. moving from a state of rest), i.e., to accelerate. Force can also be described intuitively as a push or a pull. A force has both magnitude and direction, making it a vector quantity. It is measured in the SI unit of newton (N). Force is represented by the symbol F (formerly P).

The original form of Newton's second law states that the net force acting upon an object is equal to the rate at which its momentum changes with time. If the mass of the object is constant, this law implies that the acceleration of an object;- is directly proportional to the net force acting on the object, is in the direction of the net force, and is inversely proportional to the mass of the object.

Gravitational Force: The Heliocentric View

Images of a freely falling basketball taken with a stroboscope at 20 flashes per second. The distance units on the right are multiples of about 12 millimeters. The basketball starts at rest. At the time of the first flash (distance zero) it is released, after which the number of units fallen is equal to the square of the number of flashes.

What we now call Gravity was not identified as a universal force until the work of Isaac Newton. Before Newton, the tendency for objects to fall towards the Earth was not understood to be related to the motions of celestial objects. Galileo was instrumental in describing the characteristics of falling objects by determining that the acceleration of every object in free-fall was constant and independent of the mass of the object. Today, this acceleration due to Gravity towards the surface of the Earth is usually designated as "g", and has a magnitude of about 9.81 meters per second squared (this measurement is taken from sea level and may vary depending on location), and points toward the center of the Earth. This observation means that the force of Gravity on an object at the Earth's surface is directly proportional to the object's mass. Thus an object that has a mass of m will experience a force:

$$F=mg$$

For an object in free-fall, this force is unopposed and the net force on the object is its weight. For objects not in free-fall, the force of Gravity is opposed by the reaction forces applied by their supports. For example, a person standing on the ground experiences zero net force, since a normal

force (a reaction force) is exerted by the ground upward on the person that counterbalances his weight that is directed downward.

Newton's contribution to gravitational theory was to unify the motions of heavenly bodies, which Aristotle had assumed were in a natural state of constant motion, with falling motion observed on the Earth. He proposed a law of Gravity that could account for the celestial motions that had been described earlier using Kepler's laws of planetary motion.

Newton came to realize that the effects of Gravity might be observed in different ways at larger distances. In particular, Newton determined that the acceleration of the Moon around the Earth could be ascribed to the same force of Gravity if the acceleration due to Gravity decreased as an inverse square law. Further, Newton realized that the acceleration of a body due to Gravity is proportional to the mass of the other attracting body. Combining these ideas gives a formula that relates the mass and the radius of the Earth to the gravitational acceleration, where the vector direction is given by "r".

Newton's Universal Gravitation Constant

In this equation, a dimensional constant "G" is used to describe the relative strength of Gravity. This constant has come to be known as Newton's Universal Gravitation Constant, though its value was unknown in Newton's lifetime. Not until 1798 was Henry Cavendish able to make the first measurement of G using a torsion balance; this was widely reported in the press as a measurement of the mass of the Earth since knowing G could allow one to solve for the Earth's mass given the above equation. Newton, however, realized that since all celestial bodies followed the same laws of motion, his law of Gravity had to be universal. Succinctly stated, Newton's Law of Gravitation states that the force on a spherical object of mass due to the gravitational pull of mass, where "r" is the distance between the two objects' centers of mass and "r" is the unit vector pointed in the direction

away from the center of the first object toward the center of the second object.

This formula was powerful enough to stand as the basis for all subsequent descriptions of motion within the solar system until the 20th century. During that time, sophisticated methods of perturbation analysis were invented to calculate the deviations of orbits due to the influence of multiple bodies on a planet, moon, comet, or asteroid. The formalism was exact enough to allow mathematicians to predict the existence of the planet Neptune before it was observed.

(Fg = G (m1 * m2 / r2): Sir Isaac Newton's Universal Law of Gravitation Mass Attracting Mass

And as far as mass attracting mass is concerned, it is widely known that various dielectric, electro static, quantum electro dynamic, electromagnetic forces, and both ferrous and non-ferrous magnetism operates to manipulate mass in relationship to mass. Inventing a extra invisible fictional force emanating from mass is both unnecessary and presumptuous. No person has ever confirmed that massive celestial bodies are floating in Outer Space attracting each other in a mass attracts mass fashion, as Sir Isaac Newton's Universal Law of Gravitation (F=Gmm/r2) describes. The math only describes and predicts physical behavior. It does not confirm any causal force emanating from mass.

- Math is not reality.
- It is more like a descriptive cartography than reality itself.

Sir Isaac Newton's universal law of gravitation (F=Gmm/r2) is an equation representing the attractive force (F) of two masses (m) separated at distance (r). It was first published as a part of Newton's works on classical

mechanics in the late 1600s. Force is proportional to mass and distance, related by a proportionality symbol known as the gravitational constant (G). The force of Gravity occurs even at the smallest of particles, yet at this scale, force and motion is dominated by the electric force. Only when the electric force is neutralized, such as in atoms, can the presence of Gravity be detected. Gravity is so weak, that it takes trillions and trillions of atoms, such as large bodies like planets, before the force is significant.

Description

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The Hypothetical Graviton

In theories of quantum Gravity, the Graviton is the hypothetical quantum of Gravity, an elementary particle that mediates the force of gravitational interaction. There is no complete quantum field theory of Gravitons due to an outstanding mathematical problem with renormalization in general relativity. In string theory, believed to be a consistent theory of quantum Gravity, the Graviton is a massless state of a fundamental string.

If it exists, the Graviton is expected to be massless because the gravitational force has a very long range, and appears to propagate at the speed of light. The Graviton must be a spin-2 boson because the source of gravitation is the stress–energy tensor, a second-order tensor (compared with electromagnetism's spin-1 photon, the source of which is the four-current, a first-order tensor). Additionally, it can be shown that any massless spin-2 field would give rise to a force indistinguishable from gravitation, because a massless spin-2 field would couple to the stress–energy tensor in the same way that gravitational interactions do.

This result suggests that, if a massless spin-2 particle is discovered, it must be the Graviton.

Theory

It is hypothesized that gravitational interactions are mediated by an as yet undiscovered elementary particle, dubbed the graviton. The three other known forces of nature are mediated by elementary particles: electromagnetism by the photon, the strong interaction by gluons, and the weak interaction by the W and Z bosons. All three of these forces appear to be accurately described by the Standard Model of particle physics. In the classical limit, a successful theory of gravitons would reduce to general relativity, which itself reduces to Newton's law of gravitation in the weak-field limit.

History

The term graviton was originally coined in 1934 by Soviet physicists Dmitrii Blokhintsev and F.M. Gal'perin. A mediation of the gravitational interaction by particles was anticipated by Pierre-Simon Laplace. Just like Newton's anticipation of photons, Laplace's anticipated "gravitons" had a greater speed than c, the speed of gravitons expected in modern theories, and

were not connected to quantum mechanics or special relativity, since these theories didn't yet exist during Laplace's lifetime.

Gravitons and Renormalization

When describing graviton interactions, the classical theory of Feynman diagrams and semiclassical corrections such as one-loop diagrams behave normally. However, Feynman diagrams with at least two loops lead to ultraviolet divergences.[citation needed] These infinite results cannot be removed because quantized general relativity is not perturbatively renormalizable, unlike quantum electrodynamics and models such as the Yang–Mills theory. Therefore, incalculable answers are found from the perturbation method by which physicists calculate the probability of a particle to emit or absorb gravitons, and the theory loses predictive veracity. Those problems and the complementary approximation framework are grounds to show that a theory more unified than quantized general relativity is required to describe the behavior near the Planck scale.

Comparison With Other Forces

Like the force carriers of the other forces (see photon, gluon), gravitation plays a role in general relativity, in defining the spacetime in which events take place. In some descriptions energy modifies the "shape" of spacetime itself, and gravity is a result of this shape, an idea which at first glance may appear hard to match with the idea of a force acting between particles. Because the diffeomorphism invariance of the theory does not allow any particular space-time background to be singled out as the "true" space-time background, general relativity is said to be background-independent. In contrast, the Standard Model is not background-independent, with Minkowski space enjoying a special status as the fixed background space-time. A theory of quantum gravity is needed in order to reconcile these differences. Whether this theory should be background-independent is an

open question. The answer to this question will determine our understanding of what specific role gravitation plays in the fate of the universe.

Gravitons in Speculative Theories

String theory predicts the existence of gravitons and their well-defined interactions. A graviton in perturbative string theory is a closed string in a very particular low-energy vibrational state. The scattering of gravitons in string theory can also be computed from the correlation functions in conformal field theory, as dictated by the AdS/CFT correspondence, or from matrix theory.[citation needed]

A feature of gravitons in string theory is that, as closed strings without endpoints, they would not be bound to branes and could move freely between them. If we live on a brane (as hypothesized by brane theories), this "leakage" of gravitons from the brane into higher-dimensional space could explain why gravitation is such a weak force, and gravitons from other branes adjacent to our own could provide a potential explanation for dark matter. However, if gravitons were to move completely freely between branes, this would dilute gravity too much, causing a violation of Newton's inverse-square law. To combat this, Lisa Randall found that a three-brane (such as ours) would have a gravitational pull of its own, preventing gravitons from drifting freely, possibly resulting in the diluted gravity we observe, while roughly maintaining Newton's inverse square law

A theory by Ahmed Farag Ali and Saurya Das adds quantum mechanical corrections (using Bohm trajectories) to general relativistic geodesics. If gravitons are given a small but non-zero mass, it could explain the cosmological constant without need for dark energy and solve the smallness problem. The theory received an Honorable Mention in the 2014 Essay Competition of the Gravity Research Foundation for explaining the smallness of cosmological constant. Also the theory received an Honorable Mention in the 2015 Essay Competition of the Gravity Research Foundation

for naturally explaining the observed large-scale homogeneity and isotropy of the universe due to the proposed quantum corrections.

Energy and Wavelength

While gravitons are presumed to be massless, they would still carry energy, as does any other quantum particle. Photon energy and gluon energy are also carried by massless particles. It is unclear which variables might determine graviton energy, the amount of energy carried by a single graviton.

Alternatively, if gravitons are massive at all, the analysis of gravitational waves yielded a new upper bound on the mass of gravitons. The graviton's Compton wavelength is at least 1.6×1016 m, or about 1.6 light-years, corresponding to a graviton mass of no more than 7.7×10−23 eV/c2. This relation between wavelength and mass-energy is calculated with the Planck–Einstein relation, the same formula that relates electromagnetic wavelength to photon energy. However, if gravitons are the quanta of gravitational waves, then the relation between wavelength and corresponding particle energy is fundamentally different for gravitons than for photons, since the Compton wavelength of the graviton is not equal to the gravitational-wave wavelength. Instead, the lower-bound graviton Compton wavelength is about 9×109 times greater than the gravitational wavelength for the GW170104 event, which was ~ 1,700 km. The report did not elaborate on the source of this ratio. It is possible that gravitons are not the quanta of gravitational waves, or that the two phenomena are related in a different way.

Experimental Observation

Unambiguous detection of individual gravitons, though not prohibited by any fundamental law, is impossible with any physically reasonable detector. The reason is the extremely low cross section for the interaction of gravitons with matter. For example, a detector with the mass of Jupiter and 100% efficiency, placed in close orbit around a neutron star, would only be expected to observe one graviton every 10 years, even under the most

favorable conditions. It would be impossible to discriminate these events from the background of neutrinos, since the dimensions of the required neutrino shield would ensure collapse into a black hole.

LIGO and Virgo collaborations' observations have directly detected gravitational waves. Others have postulated that graviton scattering yields gravitational waves as particle interactions yield coherent states. Although these experiments cannot detect individual gravitons, they might provide information about certain properties of the graviton. For example, if gravitational waves were observed to propagate slower than c (the speed of light in a vacuum), that would imply that the graviton has mass (however, gravitational waves must propagate slower than c in a region with non-zero mass density if they are to be detectable). Recent observations of gravitational waves have put an upper bound of $1.2\times10-22$ eV/c2 on the graviton's mass. Astronomical observations of the kinematics of galaxies, especially the galaxy rotation problem and modified Newtonian dynamics, might point toward gravitons having non-zero mass.

Difficulties and Outstanding Issues

Most theories containing gravitons suffer from severe problems. Attempts to extend the Standard Model or other quantum field theories by adding gravitons run into serious theoretical difficulties at energies close to or above the Planck scale. This is because of infinities arising due to quantum effects; technically, gravitation is not renormalizable. Since classical general relativity and quantum mechanics seem to be incompatible at such energies, from a theoretical point of view, this situation is not tenable. One possible solution is to replace particles with strings. String theories are quantum theories of gravity in the sense that they reduce to classical general relativity plus field theory at low energies, but are fully quantum mechanical, contain a graviton, and are thought to be mathematically consistent.

--Wikipedia

The Alleged Gravity of Earth

The Gravity of Earth, denoted by g, is the net acceleration that is imparted to objects due to the combined effect of gravitation (from mass distribution within Earth) and the centrifugal force (from the Earth's rotation).

In SI units this acceleration is measured in meters per second squared (in symbols, m/s2 or m·s−2) or equivalently in newtons per kilogram (N/kg or N·kg−1). Near Earth's surface, gravitational acceleration is approximately 9.81 m/s2 (32.2 ft/s2), which means that, ignoring the effects of air resistance, the speed of an object falling freely will increase by about 9.81 meters (32.2 ft) per second every second. This quantity is sometimes referred to informally as little g (in contrast, the gravitational constant G is referred to as big G).

The precise strength of Earth's Gravity varies depending on location. The nominal "average" value at Earth's surface, known as standard Gravity is, by definition, 9.80665 m/s2 (32.1740 ft/s2). This quantity is denoted variously as gn, ge (though this sometimes means the normal equatorial value on Earth, 9.78033 m/s2 (32.0877 ft/s2)), g0, gee, or simply g (which is also used for the variable local value).

The weight of an object on Earth's surface is the downwards force on that object, given by Newton's second law of motion, or F = ma (force = mass × acceleration). Gravitational acceleration contributes to the total Gravity acceleration, but other factors, such as the rotation of Earth, also contribute, and, therefore, affect the weight of the object. Gravity does not normally include the gravitational pull of the Moon and Sun, which are

accounted for in terms of tidal effects. It is a vector (physics) quantity, and its direction coincides with a plumb bob.

Specific Gravity

Specific Gravity (SG) is a special case of relative density. It is defined as the ratio of the density of a given substance, to the density of water (H2O). Substances with a specific Gravity greater than 1 are heavier than water, and those with a specific Gravity of less than 1 are lighter than water. SG is by definition dimensionless and therefore not dependent on the system of units used (e.g. slugsft−3 or kgm−3), assuming that the units are consistent. Based on the SG-value of a given substance, the density of that substance can be calculated.

Absolute Gravity

The absolute acceleration of the Earth's Gravity field as opposed to relative Gravity such as measured by conventional gravimeters. Absolute Gravity can be measured using a corner-cube reflector falling in a small vacuum chamber, the position of the reflector being measured with a laser interferometer.

What Is The Difference Between Absolute Gravity and Relative Gravity?

The first type, the absolute Gravity meter, measures the magnitude of the entire Gravity field. The second type, the relative Gravity meter, measures the difference in Gravity between two locations. This simply means that we

align the Gravity meter with the direction of maximum acceleration and measure its size.

Gravimeter Limitations and the Distortion of Gravimetric Signals on Earth

What exactly are Gravimeters measuring?

Scientists claim it is Gravity, but with all the vibrations, pressure differentials at different altitudes, barometric pressure variances, geological shifts and movements, natural sonic events, atmospheric thickness and atmospheric density variations, moving wildlife vibrations, storms, geoelectric phenomenon, and electromagnetic wave patterns, and ferrous and nonferrous magnetic fields that rocks and minerals exhibit, the Gravimeter, at best, is simply a highly sensitive vibration detection box, nothing more. They test for Gravity by calling what they test for Gravity. But, they are just testing for vibration and movement, not Gravity, per se.

The use of Gravimeters requires constant re-calibration and mathematical adjustments for non-Gravity related vibrational distortions. The precision of relative gravity measurements on the level of a few μGal offers application also for geodynamic purposes. However, the question remains whether the inherent instrument precision (root mean square error of one measurement) corresponds to the real accuracy of the gravity at the station.

It is hard to determine the achievable accuracy of Relative Gravity measurements. There are many external and internal factors which can affect the final accuracy. Also its impossible to include some aspects to the final accuracy (for instance an error from poor knowledge of the scale factor increases with the gravity difference).We can say that the precise relative

gravity measurement is possible to use for geodynamic purposes, but in close cooperation with the absolute gravity measurement. The unstable field conditions, scale factor and drift uncertainty and also the necessity of the reference value are the most important effects which have negative influence to the final accuracy of relative gravity measurements. Hydrological changes are most important for longer or periodical measurements where they can cause big differences for stages measurements. It is also the main restricting factor in accuracy for precise relative and also absolute instruments

For instance, the precision for gravimeter Scintrex Autograv CG-5 No. 10125 and gravimeter LaCoste & Romberg G No. 1068 (LCR) reaches values:

1. Autograv CG-5 10125 2.1 ± 1.1μGal
2. LaCoste & Romberg 1068 8.9 ± 4.2μGal

The precision discrepancies apply to an average root mean square error for one measurement in one typical day unit. The final value was computed as an average from four years gravity data. The preservation of high precision (Scintrex) needs a consistent application of mathematical corrections and an elimination of other effects, which can affect the final accuracy.

Possible Vibrational Causes That Effect Gravimeter Measurement Accuracy

Though scientist do everything in their power to factor out any extraneous cause for their Gravimeters readings other than their hypothetical Gravity explanation, there are still a great deal of possible vibrational causes to consider that have nothing to do with this mythical Gravity.

Possible Vibrational Causes That Effect Gravimeter Measurement Accuracy:

1) Atmospheric pressure differentials at different altitudes
2) Barometric pressure variances
3) Geological movements
4) The Earth's Magnetic Field
5) Solar Radiation
6) Lunar Position
7) Meteoric Activity and wave Perturbations
8) Vertical movement of the Earth's crust
9) Tectonic shifts and movements
10) Seismic waves
11) "Tilt Effect"
12) "Hysteresis" by the returnable pressure changes
13) Mechanical Hysteresis
14) Barometric Hysteresis
15) Gravimeter "drift"
16) Age and usage of the meter (generally the drift is decreasing with age)
17) External temperature fluctuations
18) Air humidity
19) Air pressure changes
20) Unstable Voltage
21) Reading Errors
22) Backlash of the measurement screw
23) Handling and Mounting shocks causing sudden reading change
24) Changes of the voltage power supply
25) Morphology
26) Seasonal, periodical, and quasi-periodical seismical effects and influences
27) Geological subsoil movements
28) Hydrological influences
29) Natural sonic events

30) Seismic frequencies
31) Atmospheric thickness and atmospheric density variations
32) Wildlife vibrations
33) Storms
34) Thermal fluctuations
35) Geoelectric phenomenon
36) Electromagnetic wave patterns
37) Ferrous and nonferrous magnetic fields that rocks and minerals exhibit
38) Perturbations from radio waves
39) Perturbations from microwaves
40) Perturbations from infrared, light
41) Perturbations from ultraviolet radiation
42) Perturbations from X-rays
43) Perturbations from Gamma Rays
44) Perturbations from Neutrinos

What Does a Gravimeter Measurement Test Look Like?

Measurement of Gravitational Coupling Between Millimeter-Sized Masses

Abstract

Gravity is the weakest of all known fundamental forces and poses some of the most important open questions to modern physics: it remains resistant to unification within the standard model of physics and its underlying concepts appear to be fundamentally disconnected from quantum theory1,2,3,4. Testing Gravity at all scales is therefore an important experimental endeavour5,6,7. So far, these tests have mainly involved

macroscopic masses at the kilogram scale and beyond8. Here we show gravitational coupling between two gold spheres of 1 millimeter radius, thereby entering the regime of sub-100-milligram sources of Gravity.

Periodic modulation of the position of the source mass allows us to perform a spatial mapping of the gravitational force. Both linear and quadratic coupling are observed as a consequence of the nonlinearity of the gravitational potential. Our results extend the parameter space of Gravity measurements to small, single source masses and low gravitational field strengths. Further improvements to our methodology will enable the isolation of Gravity as a coupling force for objects below the Planck mass. This work opens the way to the unexplored frontier of microscopic source masses, which will enable studies of fundamental interactions 9,10,11 and provide a path towards exploring the quantum nature of Gravity.

Overview of Relative Gravity Measurement Inaccuracies and Elimination Estimations

Effect	Magnitude [Gal]	Elimination [Gal]	Depends On
Earth and Ocean Tides	280	< 1	Variable accuracy
Hydrogeological influences	tens	approx. 5	Hydrogeology
Air pressure changes	units	< 1	Air pressure

Calibration function	tens	1…10/100m Gal	Gravity difference
Periodical errors	tens	1…5	Gravimeter
Gravimeter drift	hundreds	1…5	Gravimeter
Tilt effect	units	< 2	Observer's care
Barometrical effect	tens	units	Air pressure
Mechanical hysteresis	1..3	< 1	Gravimeter
Temperature effects	tens	units	Temperature
Magnetic field	units	< 1	Orientation
Other effects	units	1…2	Gravimeter
Vertical gradient error	tens	1…2	Gravimeter, terrain

https://www.irsm.cas.cz/materialy/acta_content/2009_03/17_Lederer.pdf

Gravimeter Signal Distortions Due to Ocean Tides

Application of tidal corrections is possible with the accuracy better than 1 μGal. Provided that we have to well know parameters δ and ϰ of tidal waves. For the accuracy better than 1 μGal is also needful to measure time

with the accuracy 0.5 minute and a latitude with the accuracy ten arc second. Gravimetric accuracies are affected by these measurable distortions.

Gravimeter Drift Causing Gravity Measurement Instrumental Errors

Instrumental errors mean changes of the recorded gravity produced by the technical imperfection of gravimetrical instruments.

Gravimeter Drift

In stationary and field operation, gravimeters exhibit a temporal variation in the display of the zero position, which is called the gravimeter drift. The drift is caused by fading of spring tensions and by uncompensated or unshielded external effects. Type and magnitude of the gravimeter drift are the function of:

- type and characteristic of the specific instrument (quartz systems have larger drifts than metal spring gravimeters)
- age and usage of the meter (generally the drift is decreasing with age)
- external temperature fluctuations
- air humidity
- air pressure changes
- changes of the voltage power supply

The spring reacts on these disturbances with change of its physical characteristics which leads to the reading change.

https://www.irsm.cas.cz/materialy/acta_content/2009_03/17_Lederer.pdf

Tilt Effect Causing Gravity Measurement Instrumental Errors

Tilt Effect

The accuracy of Gravimeters is also dependent on the quality of levelling. By well calibrated levels (calibration better than plus or minus 10") the tilt error 10" causes the residual error smaller than 2 Gal (Torge, 1989).

Theoretically, regular level checking and calibration eliminates a potential error. Gravimeter Scintrex CG-5 has an automatical reduction for errors caused by imperfect levelling of the meter. For the LCR meter, it is sometimes possible to correct the reading mathematically (using electronic level record). Nevertheless, Gravimeter accuracy is effected by the Tilt Effect.

https://www.irsm.cas.cz/materialy/acta_content/2009_03/17_Lederer.pdf

Barometrical Hysteresis Causing Gravity Measurement Instrumental Errors

All above mentioned effects can be summarized in one simple term hysteresis. The simple barometrical effect is often approximated by the linear form, using so-called barometrical coefficient B, which should be determined in the barometrical chamber.

The barometrical correction is then:

$$\Delta gP = B\ p - p0\ [\mu Gal]$$

The barometrical effect is caused by an imperfect isolation of the sensor from outer air pressure changes.

The effect of the imperfect shielding against the air pressure causes:

- Barometrical effect (reading changes depending on pressure changes)
- Continuing gravity change after end of the pressure change
- Hysteresis by the returnable pressure changes

https://www.irsm.cas.cz/materialy/acta_content/2009_03/17_Lederer.pdf

Mechanical Hysteresis Causing Gravity Measurement Instrumental Errors

When the beam is clamped, the main spring is stretched compared to its length when the beam is unclamped. It would take time for the meter to stabilize for a reading after unclamping. The mechanical hysteresis is the common effect which occurs after break (clamping/unclamping) between measurements. To eliminate this effect is proper to set the expected reading before unclamping and usage of the symmetrical reading (after the same time interval).

https://www.irsm.cas.cz/materialy/acta_content/2009_03/17_Lederer.pdf

The Earth's Magnetic Field Causing Gravity Measurement Instrumental Errors

A magnetic field represents the physical field, which influences gravimetric instruments (Pálinkáš et al., 2005). An artificially excited magnetic field (sources inside building, transmitters and so on) should be also meaningful sources of errors. There is possible to expect big changes of the magnetic field nearby artificial sources.

The elimination of the magnetic field influences is usually secured by an orientation of the gravimeter to the same azimuth at the gravity station. Worst results should be obtained inside building with sources of an artificial magnetic field.

https://www.irsm.cas.cz/materialy/acta_content/2009_03/17_Lederer.pdf

Temperature Effects Causing Gravity Measurement Instrumental Errors

Temperature variations cause changes of spring characteristics. The final reading change is function of the temperature, time gradient of the temperature and temperature transmissions inside the sensor.

https://www.irsm.cas.cz/materialy/acta_content/2009_03/17_Lederer.pdf

Vertical Gradient Causing Gravity Measurement Instrumental Errors

A possible error caused by neglecting of the correct vertical gradient is not produced by the gravimeter imperfections but depends on the gravimeter design.

The sensor of the gravimeter is in the specific height above the gravity station (reference height) during the measurement. This distance is typical for each type of the gravimeter.

https://www.irsm.cas.cz/materialy/acta_content/2009_03/17_Lederer.pdf

Types of Seismic Waves That Effect Gravimeter Measurement Accuracy

Seismic waves are waves of energy that travel through Earth's layers, and are a result of earthquakes, volcanic eruptions, magma movement, large landslides and large man-made explosions that give out low-frequency acoustic energy. Many other natural and anthropogenic sources create low-amplitude waves commonly referred to as ambient vibrations. Seismic waves are studied by geophysicists called seismologists. Seismic wave fields are recorded by a seismometer, hydrophone (in water), or accelerometer.

The propagation velocity of seismic waves depends on density and elasticity of the medium as well as the type of wave. Velocity tends to increase with depth through Earth's crust and mantle, but drops sharply going from the mantle to outer core.

Earthquakes create distinct types of waves with different velocities; when reaching seismic observatories, their different travel times help scientists to locate the source of the hypocenter. In geophysics, the refraction or reflection of seismic waves is used for research into the structure of Earth's interior, and man-made vibrations are often generated to investigate shallow, subsurface structures.

There are three basic types of seismic waves – P-waves, S-waves and surface waves. P-waves and S-waves are sometimes collectively called body waves.

P-waves

P-waves, also known as primary waves or pressure waves, travel at the greatest velocity through the Earth. When they travel through air, they take the form of sound waves – they travel at the speed of sound (330 ms-1) through air but may travel at 5000 ms-1 in granite. Because of their speed, they are the first waves to be recorded by a seismograph during an earthquake.

They differ from S-waves in that they propagate through a material by alternately compressing and expanding the medium, where particle motion is parallel to the direction of wave propagation – this is rather like a slinky that is partially stretched and laid flat and its coils are compressed at one end and then released.

S-waves

S-waves, also known as secondary waves, shear waves or shaking waves, are transverse waves that travel slower than P-waves. In this case, particle motion is perpendicular to the direction of wave propagation. Again, imagine a slinky partially stretched, except this time, lift a section and then release it, a transverse wave will travel along the length of the slinky.

Surface Waves

In physics, a surface wave is a mechanical wave that propagates along the interface between differing media. A common example is gravity waves along the surface of liquids, such as ocean waves. Gravity waves can also occur within liquids, at the interface between two fluids with different densities. Elastic surface waves can travel along the surface of solids, such as Rayleigh or Love waves. In elastodynamics, Love waves, named after Augustus Edward Hough Love, are horizontally polarized surface waves.

Electromagnetic waves can also propagate as "surface waves" in that they can be guided along with a refractive index gradient or along an interface between two media having different dielectric constants. In radio transmission, a ground wave is a guided wave that propagates close to the surface of the Earth.

Gravimeter Reading Distortions Due to Gravimeters Spring Calibration

Many early SG calibrations came from the side-by-side comparison of data from spring gravimeters that had already been calibrated either in the laboratory or on calibration lines. Due to limitations in the original calibrations, it is unlikely that the amplitude factors can be trusted below about the 0.5% level (Richter, 1991).

A recent calibration experiment of SG C026 in Strasbourg (France) by means of two FG5 AGs and new-generation spring meters (Scintrex CG-3 M and CG5 and Micro-g LaCoste gPhone) was recently done by Riccardi et al. (2012). This study confirms that, owing to the time variability of their sensitivity, such spring meters, even if well calibrated, cannot be used as a stable reference for SGs and will not replace AGs for precise SG calibration. Therefore, currently, the method using parallel recording with absolute gravity meters is still the most practical and reliable calibration approach for

SGs. The study by Meurers (2012) also involved an SG, AG, and the potential of a spring gravimeter to contribute to SG calibration.

https://www.sciencedirect.com/topics/earth-and-planetary-sciences/gravimeter

Gravimeter Inaccuracies From Instrument Drift

One SG design goal was to produce an instrument that is stable to a few μGal per year. Meeting this goal with a commercial instrument took approximately a decade. Drift in the early model TT70s could be more than 100 μGal yr−1 during the first year of operation but decreased steadily with time to less than 10–20 μGal yr−1 after 5 years of operation. Drifts were modeled as the sum of one or two exponentials, a low-degree polynomial, or a combination of both (Boy et al., 2000; Seama et al., 1993), but uncertainty in the exact functional form decreased the precision with which long-period tides and polar motion could be determined from the data.

A dramatic decrease in drift was made in the early 1990s owing to a variety of design changes described in Warburton and Brinton (1995). At present, drifts are characterized by a small initial exponential followed by a small linear term. The exponential component decays in 4–6 months, after which it is negligible. For example, the initial drift for C023 manufactured in 1995 is d(t) = –16.0exp(−t/31) μGal, where "t" is in days (Schwahn et al., 2000). Long-term linear drift rates (including real secular changes) reported for the nine SGs operating in Europe vary from 1.6 to 4.9 μGal yr−1 (Crossley et al., 2004). An 8-year comparison of an FG5 absolute gravimeter (AG) next to SG C023 in Membach confirmed that, after removal of the linear term (4.2 μGal yr−1), the SG has an identical spectra to the AG for frequencies less than 1 cpd (cycles per (solar) day) (Van Camp et al., 2005).

This confirms that the SG drift is restricted to DC (very low frequency), and that it provides a continuous low noise record of all gravity variations.

The only reliable method to determine instrumental drift is to compare the SG with collocated measurements made with an AG at regular intervals. The SG provides a complete time history of gravity at the site, which is invaluable for correlating with other geophysical variables, whereas the AG provides an absolute reference from which the drift and secular changes can be inferred. Precise drift measurement is complicated by real gravity variations due to hydrology, crustal uplift, annual terms, seasonal terms, or signals of unknown origin (e.g., Zerbini et al., 2002).

--https://www.sciencedirect.com/topics/earth-and-planetary-

Gravimeter Inaccuracies in Relative Gravity Measurements Due to Hydrogeological Influence

A hydrological influence in gravity is quite big and its magnitude significantly exceeds the measurement accuracy (measuring over longer period). The amount of the groundwater and the soil moisture correlates with many factors (morphology, geological subsoil and other) and it is almost impossible to mathematically simulate potential gravity changes.

https://www.irsm.cas.cz/materialy/acta_content/2009_03/17_Lederer.pdf

Gravimetry Signal Distortions Due to Seismic Isolation Problems

Absolute gravimeters must measure the free-fall distance to about 1 nm precision in order to achieve a 1 μGal. Seismic noise varies around the earth but generally is about 10−6m Hz−1/2 and is found to have a peak at a period of about 6 s (Raab and Coyne). Background noise therefore places a limit on the precision for absolute gravity meters of about 100–1000 μGal Hz−1/2 unless some type of seismic isolation is done. The FG5 absolute gravity meter accomplishes this by placing the reference arm of the interferometer on a long-period seismometer called a 'Superspring' developed by Rinker and Faller in 1980. The Superspring has a period of 60–90 s and can reduce the seismic noise so that the noise on one drop is about 3–5 μGal at a quiet location. It is also possible to measure the seismic noise using an accelerometer and then remove the ground noise from the measured free-fall signal. sciences/gravimeter.

Gravimetry Reading Inaccuracies From Ground Vibrations

'Ground Vibrations" is a technical term that is being used to describe mostly man-made vibrations of the ground, in contrast to natural vibrations of the Earth studied by seismology. For example, vibrations caused by explosions, construction works, railway and road transport, etc. - all belong to ground vibrations.

General Information

In seismology, ground vibrations are associated with different types of elastic waves propagating through the ground. These are surface waves, mostly Rayleigh waves, and bulk longitudinal waves and transverse waves (or shear waves) propagating into the ground depth. Typical frequency range for environmental ground vibrations is 1 – 200 Hz. Waves of lower frequencies (below 1 Hz) are usually called microseisms, and they are normally associated with natural phenomena, e.g. water waves in the oceans. Environmental ground vibrations generated by rail and road traffic may cause annoyance to residents of nearby buildings both directly and via generated structure-borne interior noise. Very strong ground vibrations, e.g. generated by heavy lorries on bumped roads, may even cause structural damage to very close buildings. Magnitudes of ground vibrations are usually described in terms of particle vibration velocity (in mm/s or m/s). Sometimes they are also described in decibels (relative to the reference particle velocity of 10−9 m/s). Typical values of ground vibration particle velocity associated with vehicles passing over traffic calming road humps are in the range of 0.1 – 2 mm/s. Magnitudes of ground vibrations that are considered to be able to cause structural damage to buildings are above 10–20 mm/s.

Ground Vibrations From Railways

The main sources of ground vibrations generated by railway trains are dynamic forces transmitted from tracks to the ground. These forces are associated with complex processes of interaction of moving train axles with railway tracks supported by the elastic ground. The magnitudes of these forces generally increase with the increase of train speeds. Therefore, the levels of generated ground vibrations may be substantial in the case of high-speed trains. If a train speed becomes larger than Rayleigh wave velocity in the ground, an additional very large increase in generated ground vibrations takes place. This phenomenon is termed ground vibration boom, and it is similar to sonic boom generated by supersonic aircraft.

Ground Vibrations From Road Traffic

The main mechanism responsible for generation of ground vibrations by moving cars and lorries is the dynamic forces associated with vehicle passage over road irregularities, such as bumps, peats, etc. These forces, and hence generated ground vibrations, can be reduced by keeping road surfaces in good condition.

Ground Vibrations At Construction

The main sources of ground vibrations at construction are pile driving, dynamic compaction, blasting, and operation of heavy construction equipment. These vibrations may harmfully affect surrounding buildings, and their effect ranges from disturbance of residents to visible structural damage.

Peer Reviewed Admitted Inaccuracies in The Newtonian Gravitational Constant

Measurements of the gravitational constant using two independent methods

Abstract

The Newtonian gravitational constant, G, is one of the most fundamental constants of nature, but we still do not have an accurate value for it. Despite two centuries of experimental effort, the value of G remains the least precisely known of the fundamental constants. A discrepancy of up to 0.05 per cent in recent determinations of G suggests that there may be undiscovered systematic errors in the various existing methods. One way to resolve this issue is to measure G using a number of methods that are unlikely to involve the same systematic effects. Here we report two independent determinations of G using torsion pendulum experiments with the time-of-swing method and the angular-acceleration-feedback method. We obtain G

values of 6.674184 × 10−11 and 6.674484 × 10−11 cubic meters per kilogram per second squared, with relative standard uncertainties of 11.64 and 11.61 parts per million, respectively. These values have the smallest uncertainties reported until now, and both agree with the latest recommended value within two standard deviations.

https://www.nature.com/articles/s41586-018-0431-5

Superconducting Gravimeter Calibration Failures

Abstract

Gravimetry is a well-established tool to probe the deep Earth's processes. Geophysical signals coming from the deep Earth, like the inner core free oscillations, have however never been detected. Challenging quests raise the question of the limits of detection of elusive signals at the Earth's surface. Knowledge of the instrumental limits and of the environmental noise level at a site is fundamental to judge the true sensitivity of an instrument.

We perform a noise level comparison of various gravimeters and a long-period seismometer at the J9 gravimetric observatory of Strasbourg (France) to provide a reference of instrumental performances. We then apply a three-channel correlation analysis of time-varying surface Gravity from superconducting gravimeter records to isolate the instrumental self-noise from the environmental noise. The self-noise coherence analysis shows that the instrumental noise level remains flat towards lower frequencies till 10−4 Hz. At seismic frequencies, the self-noise is well explained by a Brownian thermal noise model. At daily and sub-daily time-scales, self-noise is increasing with the period but to a much lesser extent than observed noise level. Observed Earth's ambient noise level at sub-seismic frequencies is hence mostly due to unmodeled geophysical processes. At hourly time-scales,

our ability to detect elusive signals coming from the deep Earth's interior is not limited by the instrument capability but is mostly due to the environmental effects.

--https://www.nature.com/articles/s41598-018-33717-z

The Calibration of Superconducting Gravimeters is Another Issue

On the Accuracy of the Calibration of Superconducting Gravimeters Using Absolute and Spring Sensors: a Critical Comparison

Abstract

Over the past two decades, superconducting gravimeters (SGs) have been a key tool to investigate a number of geophysical processes leading to time-variable Gravity changes. As SGs are relative meters, even though they are the most sensitive and stable devices currently available, they need to be accurately calibrated. Each branch of Earth sciences that benefits from high-precision Gravity monitoring demands calibration of Gravity sensors to accuracy of better than 0.1%. This research deals with a calibration experiment performed at the Strasbourg (France) SG site by means of two FG5 (#206 and #211) absolute gravimeters (AGs) and new-generation spring meters (Scintrex Ltd. Autograv CG-3M and CG5 and Microg-LaCoste gPhone). Our goal is to try to use the newest generation of spring mechanical gravimeters (MGs) for calibrating SGs. We discuss the results in terms of precision and accuracy of the SG calibration by means of different metrological and methodological approaches. With the FG5 #211 we derive scale factors for the SG-GWR C026 located in Strasbourg in agreement with

those routinely obtained since 1997 by means of the FG5 #206. This confirms that the estimation of the scale factors is independent of the AG sensor. From a moving-window regression analysis between the synthetic body tides and both the SG and MG Gravity records we detect significant fluctuations of the SG scale factors over time due to the instability of the instrumental sensitivity of the MGs. Our main results demonstrate that, owing to the time variability of their sensitivity, the used spring meters, even if well calibrated, cannot be used as a stable reference for SGs. As a result, MGs are not suitable to replace AGs for SG calibration, and we conclude that currently the method using parallel recording with absolute Gravity meters is still the most feasible calibration approach for SGs.

--https://link.springer.com/article/10.1007/s00024-011-0398-8

Problems of Gravimeter Calibration in High Precision Gravimetry

Abstract

At high precision Gravity investigations some problems can arise with respect to temporal variations of the instrumental calibration factor function. A long-time observation of the LCR D-9 equipped with a SRW-D feedback system shows irregular temporal variations both of the linear and the nonlinear component of the feedback calibration factor function. Investigating simultaneously the non-linearity of the LCR scale factor function helps to distinguish between real variations of the feedback calibration factor and measuring errors or Gravity variations at the calibration line. Repeated cyclic error measurements indicate a long-term instability of the scale factor function of the LCR D-9. Therefore a periodical check of the long-time stability of the calibration factor functions both of the LCR and the feedback system is required for high precision measurements. Additional calibration procedures are necessary immediately before and after high precise

Gravity measuring campaigns to determine possible irregular variations of the LCR and feedback calibration factors.

https://link.springer.com/chapter/10.1007/978-3-642-79721-7_3

Altitude and Atmospheric Pressure Effects Gravimeter Accuracy

Atmospheric pressure, also known as barometric pressure (after the barometer), is the pressure within the atmosphere of Earth. The standard atmosphere (symbol: atm) is a unit of pressure defined as 101,325 Pa (1,013.25 hPa; 1,013.25 mbar), which is equivalent to 760 mm Hg, 29.9212 inches Hg, or 14.696 psi. The atm unit is roughly equivalent to the mean sea-level atmospheric pressure on Earth; that is, the Earth's atmospheric pressure at sea level is approximately 1 atm.

In most circumstances, atmospheric pressure is closely approximated by the hydrostatic pressure caused by the weight of air above the measurement point. As elevation increases, there is less overlying atmospheric mass, so that atmospheric pressure decreases with increasing elevation. Because the atmosphere is thin relative to the Earth's radius—especially the dense atmospheric layer at low altitudes—the Earth's gravitational acceleration as a function of altitude can be approximated as constant and contributes little to this fall off.

Pressure measures force per unit area, with SI units of pascals (1 pascal = 1 newton per square metre, 1 N/m2). On average, a column of air with a cross-sectional area of 1 square centimeter (cm2), measured from mean (average) sea level to the top of Earth's atmosphere, has a mass of about 1.03 kilogram and exerts a force or "weight" of about 10.1 newtons, resulting in a pressure of 10.1 N/cm2 or 101 kN/m2 (101 kilopascals, kPa). A column of air with a cross-sectional area of 1 in2 would have a weight of about 14.7 lbf, resulting in a pressure of 14.7 lbf/in2.

The Influence of Barometric-Pressure Variations on Gravity

Abstract

The superconducting gravimeter has been used to measure the influence of barometric pressure on Gravity in the frequency range 0.1–10 cycles/day. These measurements show that the incoherent barometric fluctuations are the major cause of random fluctuations in local Gravity and account for much of the 'noise' on our gravimeter records. A simple model has been constructed which adequately explains the response of Gravity to the local pressure fluctuations. These measurements also show a response to the global atmospheric tides at S1 and S2 which is much larger than the response to local fluctuations. Although this behavior is most likely due to the response of the world-wide oceans to the atmospheric tides, no theoretical model has yet been constructed.

https://www.researchgate.net/publication/229456167_The_influence_of_barometric-pressure_variations_on_Gravity

Atmospheric Pressure Interferes With Gravimeter Accuracy

Reduction of Surface Gravity Data From Global Atmospheric Pressure

Summary

Besides solid Earth and ocean tides, atmospheric pressure variations are one of the major sources of surface Gravity perturbations. As shown by previous studies (Merriam 1992; Mukai et al.1995; Boy et al. 1998), the usual pressure correction with the help of local pressure measurements and the barometric admittance (a simple transfer function between pressure and

Gravity, both measured locally) does not allow an adequate estimation of global atmospheric loading. We express the response of the Earth to pressure forcing using a Green's function formalism (Farrell 1972). The atmosphere acts on surface Gravity through two effects: first, a direct gravitational attraction by air masses which is sensitive to regional (about 1000 km around the gravimeter) pressure variations; second, an elastic process induced by the Earth's surface deformation and mass redistribution which is sensitive to large scale pressure variations (wavelengths greater than 4000 km).

We estimate atmospheric loading using Green's functions and global pressure charts provided by meteorological centers. We introduce different hypotheses on the atmospheric thickness and atmospheric density variations with altitude for the modelling of the direct Newtonian attraction. All computations are compared to Gravity data provided by superconducting gravimeters of the GGP (Global Geodynamics Project) network. We show the improvements by modelling global pressure versus the local estimates in terms of reduction of the variance of Gravity residuals. We can also validate the inverted barometer (IB) hypothesis as the oceanic response to pressure forcing for periods exceeding one week. The non-inverted barometer (NIB) hypothesis is shown to be definitely an inadequate assumption for describing the oceanic response to atmospheric pressure at seasonal timescales.

--https://academic.oup.com/gji/article/149/2/534/728638

More Issues With Gravimeter Inaccuracies

Correcting Gravimeters and Tiltmeters for Atmospheric Mass Attraction Using Operational Weather Models

Abstract

The Newtonian attraction of the atmosphere is a major source of noise in precise gravimetric measurements. A major part of the effect is eliminated using local air pressure records and constant admittance factors. However, vertical mass shifts under constant surface pressure or distant pressure anomalies are not covered by this technique although they affect the gravimeter. In order to confirm the atmospheric correction and to evaluate the horizontal components of attraction as well, the Newtonian attraction is computed based on the spatial density distribution derived from three-dimensional weather models.

Operational models from the German Weather Service (DWD) of various scales were used, supplemented by a global data set from the European Centre of Medium Weather Forecast (ECMWF) for comparison. The low temporal resolution and the improper point-mass assumption in the near field are tackled by a cylindrical local model by computing the attraction analytically based on local air pressure records with high temporal resolution.

It is shown that a height of at least 50 km and global coverage is required to meet a threshold of 1 nm/s 2 . Neglecting the upper atmosphere leads to an overestimation of the seasonal Gravity signal. At distances greater than 10° the time consuming three-dimensional computation can be replaced by a two-dimensional surface pressure approach without significant error. The results show differences up to 20 nm/s 2 as compared to the linear

regression method. The three-dimensional atmospheric correction significantly reduces noise in the time series, giving more insight into other signals such as hydrological effects or deformation processes. Key words: gravimeter, tiltmeter, atmospheric attraction, weather models.

--https://hal.archives-ouvertes.fr/hal-00594429/document

Limits To The Sensitivity of A Low Noise Compact Atomic Gravimeter

Abstract

A detailed analysis of the most relevant sources of phase noise in an atomic interferometer is carried out, both theoretically and experimentally. Even a short interrogation time of 100 ms allows our cold atom gravimeter to reach an excellent short term sensitivity to acceleration of 1.4×10-8g at 1 s. This result relies on the combination of a low phase noise laser system, efficient detection scheme and good shielding from vibrations. In particular, we describe a simple and robust technique of vibration compensation, which is based on correcting the interferometer signal by using the ac acceleration signal measured by a low noise seismometer.

https://link.springer.com/article/10.1007/s00340-008-3088-1

Gravimeters Errors Due To Atmospheric Conditions

Modeling of Atmospheric Gravity Effects for High-Precision Observations

Abstract

Temporal variations of atmospheric density distribution induce changes in the gravitational air mass attraction at a specific observation site. Additionally, the load of the atmospheric masses deforms the Earth's crust and the sea surface. Variations in the local Gravity acceleration and atmospheric pressure are known to be corrected with an admittance of about 3 nm/s2 per hPa as a standard factor, which is in accordance with the IAG Resolution No. 9, 1983. A more accurate admittance factor for a Gravity station is varying with time and depends on the total global mass distribution within the atmosphere.

The Institut für Erdmessung (IfE) performed absolute Gravity observations in the Fennoscandian land uplift area nearly every year from 2003 to 2008. The objective is to ensure a reduction with 3 nm/s2 accuracy. Therefore, atmospheric Gravity changes are modeled using globally distributed ECMWF data. The attraction effect from the local zone around the Gravity station is calculated with ECMWF 3D weather data describing different pressure levels up to a height of 50 km. To model the regional and global attraction, and all deformation components the Green's functions method and surface ECMWF 2D weather data are used. For the annually performed absolute gravimetry determinations, this approach confirmed the reductions by 8 nm/s2 (-19 nm/s2 to +4 nm/s2). The Gravity modeling was verified using superconducting gravimeter data at station Membach in Belgium improving the residuals by about 15%.

https://www.scirp.org/journal/paperinformation.aspx?paperid=33344

Atomic Gravimeters Fail Due To Wave-Front Distortions

The Influence of Transverse Motion Within an Atomic Gravimeter

Abstract

Limits on the long-term stability and accuracy of a second generation cold atom gravimeter are investigated. We demonstrate a measurement protocol based on four interleaved measurement configurations, which allows rejection of most of the systematic effects, but not those related to Coriolis acceleration and wave-front distortions. Both are related to the transverse motion of the atomic cloud. Carrying out measurements with opposite orientations with respect to the Earth's rotation vector direction allows us to separate the effects and correct for the Coriolis shift. Finally, measurements at different atomic temperatures are presented and analyzed. In particular, we show the difficulty of extrapolating these measurements to zero temperature, which is required in order to correct for the bias due to wave-front distortions.

https://iopscience.iop.org/article/10.1088/1367-2630/13/6/065025/meta

Gravimeters Fail Due to Ground Vibrations: Serious Factor Limiting Measurement Precision

A Vibration Correction Method For Free-Fall Absolute Gravimeters

Abstract

An accurate determination of gravitational acceleration, usually approximated as 9.8 m s−2, has been playing an important role in the areas of metrology, geophysics, and geodetics. Absolute gravimetry has been experiencing rapid developments in recent years. Most absolute gravimeters today employ a free-fall method to measure gravitational acceleration. Noise from ground vibration has become one of the most serious factors limiting measurement precision.

Compared to vibration isolators, the vibration correction method is a simple and feasible way to reduce the influence of ground vibrations. A modified vibration correction method is proposed and demonstrated. A two-dimensional golden section search algorithm is used to search for the best parameters of the hypothetical transfer function. Experiments using a T-1 absolute gravimeter are performed. It is verified that for an identical group of drop data, the modified method proposed in this paper can achieve better correction effects with much less computation than previous methods. Compared to vibration isolators, the correction method applies to more hostile environments and even dynamic platforms, and is expected to be used in a wider range of applications.

https://iopscience.iop.org/article/10.1088/1361-6501/aaa190/meta

What Are Terrestrial Gravity Fluctuations

Abstract

Terrestrial Gravity fluctuations are a target of scientific studies in a variety of fields within geophysics and fundamental-physics experiments involving Gravity such as the observation of gravitational waves. In

geophysics, these fluctuations are typically considered as signal that carries information about processes such as fault ruptures and atmospheric density perturbations. In fundamental-physics experiments, it appears as environmental noise, which needs to be avoided or mitigated. This article reviews the current state-of-the-art of modeling high-frequency terrestrial Gravity fluctuations and of Gravity-noise mitigation strategies. It hereby focuses on frequencies above about 50 mHz, which allows us to simplify models of atmospheric Gravity perturbations (beyond Brunt–Väisälä regime) and it guarantees as well that gravitational forces on elastic media can be treated as perturbation.

Extensive studies have been carried out over the past two decades to model contributions from seismic and atmospheric fields especially by the gravitational-wave community. While terrestrial Gravity fluctuations above 50 mHz have not been observed conclusively yet, sensitivity of instruments for geophysical observations and of gravitational-wave detectors is improving, and we can expect first observations in the coming years. The next challenges include the design of Gravity-noise mitigation systems to be implemented in current gravitational-wave detectors, and further improvements of models for future gravitational-wave detectors where terrestrial Gravity noise will play a more important role. Also, many aspects of the recent proposition to use a new generation of Gravity sensors to confirm real-time Earthquake early-warning systems still require detailed analyses

--https://d-nb.info/1208003380/34

Gravimeters fails do to Atmospheric Pressure Fluctuations

Terrestrial Gravity Fluctuations and Atmospheric Pressure Fluctuations

Abstract

Different forms of fluctuations of the terrestrial Gravity field are observed by Gravity experiments. For example, atmospheric pressure fluctuations generate a Gravity-noise foreground in measurements with super-conducting gravimeters. Gravity changes caused by high-magnitude Earthquakes have been detected with the satellite Gravity experiment GRACE, and we expect high-frequency terrestrial Gravity fluctuations produced by ambient seismic fields to limit the sensitivity of ground-based gravitational-wave (GW) detectors. Accordingly, terrestrial Gravity fluctuations are considered noise and signal depending on the experiment. Here, we will focus on ground-based gravimetry. This field is rapidly progressing through the development of GW detectors.

The technology is pushed to its current limits in the advanced generation of the LIGO and Virgo detectors, targeting Gravity strain sensitivities better than 10−23 Hz−1/2 above a few tens of a Hz. Alternative designs for GW detectors evolving from traditional Gravity gradiometers such as torsion bars, atom interferometers, and superconducting gradiometers are currently being developed to extend the detection band to frequencies below 1 Hz. The goal of this article is to provide the analytical framework to describe terrestrial Gravity perturbations in these experiments. Models of terrestrial Gravity perturbations related to seismic fields, atmospheric disturbances, and vibrating, rotating or moving objects, are derived and analyzed.

The models are then used to evaluate passive and active Gravity noise mitigation strategies in GW detectors, or alternatively, to describe their potential use in geophysics. The article reviews the current state of the field, and also presents new analyses especially with respect to the impact of seismic scattering on Gravity perturbations, active Gravity noise cancellation, and time-domain models of Gravity perturbations from atmospheric and seismic point sources. Our understanding of terrestrial Gravity fluctuations will have great impact on the future development of GW detectors and high-precision gravimetry in general, and many open questions need to be answered still as emphasized in this article.

https://link.springer.com/article/10.1007/lrr-2015-3

Gravimeter Distortions do to the Violation of Local Position Invariance

New Limits on The Violation of Local Position Invariance of Gravity

Abstract

Within the parameterized post-Newtonian (PPN) formalism, there could be an ***Anisotropy** of local Gravity induced by an external matter distribution, even for a fully conservative metric theory of Gravity. It reflects the breakdown of the ****Local Position Invariance** of Gravity and, within the PPN formalism, is characterized by the Whitehead parameter ξ. We present three different kinds of observation, from the Solar system and radio pulsars, to constrain it.

The most stringent limit comes from recent results on the extremely stable pulse profiles of solitary millisecond pulsars, that gives $|\hat{\xi}| < 3.9 \times 10^{-9}$ (95% CL), where the hat denotes the strong-field

generalization of ξ. This limit is six orders of magnitude more constraining than the current best limit from superconducting gravimeter experiments. It can be converted into an upper limit of ∼4 × 10−16 on the spatial anisotropy of the gravitational constant.

https://iopscience.iop.org/article/10.1088/0264-9381/30/16/165020/meta

***Anisotropy**

Anisotropy, in physics, the quality of exhibiting properties with different values when measured along axes in different directions. A familiar example of anisotropy is double refraction or birefringence, the difference in the speed of light along different axes of crystals of the mineral calcite.

****Local Position Invariance**

Local Position Invariance (LPI) is part of the more general Einstein equivalence principle (EEP) which in turn is a foundation of Einstein's theory of general relativity. The EEP predicts a dependence of clock rates on the local gravitational potential U. LPI predicts that the gravitational shift is independent of the atomic species involved as a reference in the clock. It can thus be tested by comparing two different kinds of atomic frequency standard in the same time-varying gravitational potential U(t).

In our experiment we made use of the time dependence of U(t) due to Earth's annual elliptical orbital motion. U(t)/c2 varies between ±3.3×10-10 (c is the speed of light). Comparing a cesium atomic fountain frequency standard with a hydrogen maser for about one year allowed us to set an upper limit on a possible frequency variation of 2.1×10-5 of this amount. Compared to previous similar experiments the limit of the notional violation of LPI was reduced by a factor of more than 30.

The Equivalence Principle

The Equivalence Principle, a crucial part of Einstein's general relativity theory, states that the gravitational force experienced in any small region of space-time is the same as the pseudo-force experienced by an observer in an accelerated frame of reference. Testing this principle is of key importance, as it could lead to interesting observations and broaden our current understanding of Gravity.

"Einstein's equivalence principle consists of three main principles," Habibi explained. "One of them, called the local position invariance (LPI), states that non-gravitational measurements should be independent of the location in space time (characterized by gravitational potential) where they are carried out. The main part of our study focuses on testing the LPI principle."

Gravimeters Fail do to The Effect of Wavefront Aberrations in Atom Interferometry

Abstract

Wavefront aberrations are one of the largest uncertainty factors in present atom interferometers. We present a detailed numerical and experimental analysis of this effect based on measured aberrations from optical windows. By placing windows into the Raman beam path of our atomic gravimeter, we verify for the first time the induced bias in very good agreement with theory. Our method can be used to reduce the uncertainty in atomic gravimeters by one order of magnitude, resulting in an error of $<3 \times 10-10g$, and it is suitable in a wide variety of atom interferometers with thermal or ultracold atoms. We discuss the limitations of our method, potential improvements, and its role in future generation experiments.

https://link.springer.com/article/10.1007/s00340-015-6138-5

Dynamic Gravimetry Fails do to Air-Liquid Interface Disequilibrium

Abstract

The paper describes the physical and mathematical fundamentals of dynamic gravimetry in liquid phase. First, a relation is developed to calculate the apparent weight of a vertical thin cylinder partially immersed Into a liquid.

It emphasizes the magnitude of buoyancy forces and surface-tension forces (which act upon fine threads used to suspend a solid object completely immersed into a liquid). Next, the basic relation of dynamic gravimetry is derived to estimate the absolute mass of adsorbed material onto the surface of a submerged solid object. This relation encompasses, apart from the term related to the measured output signal of the balance, three correction terms which originate from the surface tension effects, buoyancy effect of the submerged object, and buoyancy effect due to the adsorbed material.

The following sections address adsorption at the air-liquid interface as well as the molecular diffusion process (both being intermingled with concentration and density gradients in the system). Special attention is given to the errors connected with a series of relaxation processes in which the external menisci, the plate-beam system, and the surface tension are involved once their equilibrium conditions are disturbed. The time constants of these relaxation processes cannot be exactly predicted. The paper concludes with an experimental illustration of dynamic gravimetry, with the adsorption of β-lactoglobulin onto stainless steel plates. The validity of predictions based upon the physico-mathematical fundamentals is reconciled with the analytical and technical aspects and difficulties specific to dynamic gravimetry.

https://aiche.onlinelibrary.wiley.com/doi/abs/10.1002/btpr.542001020[9]

Gravimeters Fail due to Seismic Frequencies

Noise Levels of Superconducting Gravimeters at Seismic Frequencies

Summary

Until recently superconducting gravimeters (SGs) have been used principally in tidal studies (periods 6–24 hr) due to their high sensitivity and low drift rates. This paper considers the performance of these instruments as

long-period seismometers, particularly in the normal mode band (periods 1–54 min). To judge their suitability in providing useful information to seismology, it is important to determine their noise characteristics compared to other established instruments such as spring gravimeters.

We compare several continuously recording instruments: the SGs in Esashi (Japan), Wuhan (China), Strasbourg (France) and Cantley (Canada) and the spring gravimeter ET-19 and seismometer STS-1 at the Black Forest Observatory (BFO, Germany). We also include non-permanent instruments, the SG102 at BFO as well as the ET-18 in Metsähovi (Finland). The five quietest days out of the available records are stacked to obtain the power spectral density of the noise in the frequency band 0.05–20 mHz (50 s to 6 hr). Our reference is the New Low Noise Model designed for seismometers. Only at the BFO site were there several instruments that could be compared; even so, in order to obtain the best individual data for each instrument the records selected were not simultaneous.

The noise characteristics of the different instrument–site combinations are compared, leading to conclusions about site selection, instrument modifications and the recent potential of SGs to contribute to seismic normal mode studies. We refer to our previous work on the seismic noise magnitude, a summary statistic derived from the power spectral density which has been used to rank the performance of instrument–site combinations.

https://academic.oup.com/gji/article/139/1/87/575246?login=true

Ring Laser Gyroscope

A ring laser gyroscope (RLG) consists of a ring laser having two independent counter-propagating resonant modes over the same path; the difference in phase is used to detect rotation. It operates on the principle of the Sagnac effect which shifts the nulls of the internal standing wave pattern in response to angular rotation. Interference between the counter-propagating beams, observed externally, results in motion of the standing wave pattern, and thus indicates rotation.

Description

The first experimental ring laser gyroscope was demonstrated in the US by Macek and Davis in 1963.[1] Various organizations worldwide subsequently developed ring-laser technology further. Many tens of thousands of RLGs are operating in inertial navigation systems and have established high accuracy, with better than 0.01°/hour bias uncertainty, and mean time between failures in excess of 60,000 hours.

Ring laser gyroscopes can be used as the stable elements (for one degree of freedom each) in an inertial reference system. The advantage of using an RLG is that there are no moving parts (apart from the dither motor assembly, see further description below and laser-lock), compared to the conventional spinning gyroscope. This means there is no friction, which in turn eliminates a significant source of drift. Additionally, the entire unit is compact, lightweight and highly durable, making it suitable for use in mobile systems such as aircraft, missiles, and satellites. Unlike a mechanical gyroscope, the device does not resist changes to its orientation.

Contemporary applications of the Ring Laser Gyroscope (RLG) include an embedded GPS capability to further enhance accuracy of RLG Inertial Navigation Systems (INS)s on military aircraft, commercial airliners, ships and spacecraft. These hybrid INS/GPS units have replaced their

mechanical counterparts in most applications. Where ultra-accuracy is needed however, spin gyro based INSs are still in use today.

--Wikipedia

Helium–Neon Laser

A helium–neon laser or He-Ne laser, is a type of gas laser whose gain medium consists of a mixture of 10:1 ratio of helium and neon at a total pressure of about 1 torr inside of a small electrical discharge. The best-known and most widely used He-Ne laser operates at a wavelength of 632.8 nm, in the red part of the visible spectrum."

--Wikipedia

Ring Laser Gyroscopes and Earth Rotation Measurement Inaccuracies

The use of Ring Laser Gyroscopes requires constant re-calibration, optical decoherence adjustments, and mathematical -re-factoring for non-rotational related orientation distortions.

Some problems with Ring Laser Gyroscopes include:

1) **Errors of the optical angular encoder (OAE)**
2) **Distortions due to the combined effect of slight nonplanar deformations (a reciprocal rotation effect) and an applied magnetic field (a nonreciprocal rotator)**
3) **Nonlinear scale factor distortions, resulting from the backscattering effect in a laser gyro**

4) **The effect of Unequal Intensities of Counter-Propagating Waves on the Frequency Response of Laser Gyroscopes**
5) **Radiation coloration and bleaching of optically transparent low thermal expansion materials and radiation responses of optical photodetectors and Ring Laser Gyroscopes**
6) **Light Intensity Variation Caused By PZT Distortion in Four-Mode Laser Gyros**
7) **Quantum Noise in A Dithered-Ring-Laser Gyroscope**
8) **The bias of Ring Laser Gyroscope (RLG) exhibits a non-ignorable characteristic of drift when its temperature changes**
9)

Regarding the precision of Ring Laser Gyroscopes, the question still remains whether the inherent instrument precision (root mean square error of one measurement) corresponds to the real accuracy of the rotation of The Earth. Again, what are we looking for in these measurements? For instance, if Aether is factored out of the experiment, then we are measuring something quite different than these Earth's rotational experiments professes to do using Ring Laser Gyroscopes. Are we measuring Earth rotation or **Aetheric shift** in the environment?

You see how easy it is to create an conclusion simply by excluding certain data and interpreting in favor of what you profess to be testing for, at all costs. It is hard to determine the achievable accuracy of Ring Laser Gyroscopes measurements for the aforementioned reasons. There are many external and internal factors which can affect the final accuracy.

The Sagnac Effect

The Sagnac Effect, also called Sagnac interference, named after French physicist Georges Sagnac, is a phenomenon encountered in interferometry that is elicited by rotation. The Sagnac effect manifests itself in a setup called a ring interferometer. A beam of light is split and the two beams are made to follow the same path but in opposite directions. On return to the point of

entry the two light beams are allowed to exit the ring and undergo interference. The relative phases of the two exiting beams, and thus the position of the interference fringes, are shifted according to the angular velocity of the apparatus. In other words, when the interferometer is at rest with respect to a nonrotating frame, the light takes the same amount of time to traverse the ring in either direction. However, when the interferometer system is spun, one beam of light has a longer path to travel than the other in order to complete one circuit of the mechanical frame, and so takes longer, resulting in a phase difference between the two beams. This arrangement is also called a Sagnac interferometer. Georges Sagnac set up this experiment to confirm the existence of the Aether and that the Earth does not rotate on an axis.

How do you think the advocates of Heliocentric theory responded? Why, they made something up of course! What else could they do but invent another wild theory to play down these experimental results and lead us further into the cesspit of fallacy. Enter showbiz academic of the 20th century, Einstein and the special theory of relativity.

Aether Drag Hypothesis

In the 19th century, the theory of the Luminiferous Aether as the hypothetical medium for the propagation of light waves was widely discussed. The Aether hypothesis arose because physicists of that era could not conceive of light waves propagating without a physical medium in which to do so. When experiments succeeded to detect the hypothesized Luminiferous Aether, physicists recoiled to explain the findings away.

The Aether drag hypothesis proposed that the luminiferous Aether is dragged by or entrained within moving matter. According to one version of this hypothesis, no relative motion exists between Earth and Aether. According to another version, the Earth does move relative to the Aether, and the measured speed of light should depend on the speed of this motion

("Aether wind"), which should be measurable by instruments at rest on Earth's surface. In 1818, Augustin-Jean Fresnel proposed that the Aether is partially entrained by matter. In 1845, George Stokes proposed that the Aether is completely entrained within or in the vicinity of matter.

Albert Michelson and Edward Morley: Aether Conformed, Earth Rotation Non-Existent

In 1887, Albert Michelson and Edward Morley set up a device which split up light: one beam in the direction of the Earth's rotation, and one at right angles. The two light beams then recombined and hit a photographic plate. The difference is speed of the two beams would create an interference pattern. They expected to measure a speed of 30 km/s as that was the speed of the Earth's supposed rotation, but instead registered a variable difference of between 1 and 10 km/s each time the experiment was repeated. They called this a "null" result. This confirms that the Earth is not moving at all through space, and at the same time, confirmed the existence of the Aether. The traveling light wasn't moving with the Earth.

It didn't stop there, Georges Sagnac, and Henry Gale conducted similar experiments, but on a rotating platform, which again demonstrated the existence of the Aether, already confirmed by default in 1871 and 1885 by combining the results from George Airy and Foucault's pendulum, and also in 1887 by the Michelson-Morley experiment.

Ring Laser Gyroscope "Lock-In" At Very Slow Rotation Rates

Ring Laser Gyroscope suffer from an effect known as "lock-in" at very slow rotation rates. When the ring laser is hardly rotating, the frequencies of the counter-propagating laser modes become almost identical. In this case,

crosstalk between the counter-propagating beams can allow for *__Injection Locking__ so that the standing wave "gets stuck" in a preferred phase, thus locking the frequency of each beam to that of the other, rather than responding to gradual rotation.

***Injection Locking**

Injection locking and injection pulling are the frequency effects that can occur when a harmonic oscillator is disturbed by a second oscillator operating at a nearby frequency. When the coupling is strong enough and the frequencies near enough, the second oscillator can capture the first oscillator, causing it to have essentially identical frequency as the second. This is injection locking. When the second oscillator merely disturbs the first but does not capture it, the effect is called injection pulling. Injection locking and pulling effects are observed in numerous types of physical systems, however the terms are most often associated with electronic oscillators or laser resonators.

Other Devices Used to Detect the Earth's Rotation that Suffer Distortion and Measurement Perturbations and Inaccuracies

1) Helium–Neon Ring Laser
2) Atom Interferometer Gyroscope
3) Brillouin Ring Lasers On A Silicon Chip
4) Superfluid Phase Coherence Devices
5) Diamagnetically Levitating Gyroscope
6) MEMS Gyroscope
7) Micromechanical Yaw-Rate Gyro
8) Radio Interferometry

The Earth's Natural Land Mass Movement in a Vast Field of Oceanic Fluid

If we assume that The Earth is an immense circular disc, and that it is primarily composed of ocean water on its surface, then we can easily imagine that the relatively smaller land mass of The Earth would, at times, be literally free floating on the water of the oceans. Afterall, even Heliocentrist assert that The Earth is composed pf 71 percent water.

It may be the case that certain land masses are anchored to the subterranean depths of The Earth, but it is no stretch of the imagination to consider that great land masses, and even whole continents, may, essentially, be "floating" on the Earth's oceans.

The Heliocentrist's Pangaea

Consider The Heliocentrist's beloved Pangea.

Theoretically, Pangaea was a supercontinent that existed during the late Paleozoic and early Mesozoic eras. It assembled from earlier continental units during the Carboniferous approximately 335 million years ago, and began to break apart about 200 million years ago, at the end of the Triassic and beginning of the Jurassic. In contrast to the present Earth and its distribution of continental mass, Pangaea was centered on the Equator and surrounded by the super ocean Panthalassa and the Paleo-Tethys and subsequent Tethys Oceans. Pangaea is the most recent supercontinent to have existed and the first to be reconstructed by geologists.

And so, even The Heliocentrist admit that The Earth's land mass had literally "ripped from its moorings", as it were, and broke up and drifted apart, each piece from each other piece, to create the world as we know it.

And if this were so, both Gravitational measurements, as well as the official Earth rotational measurements would be the result of this basic relationship between land and water.

And so, this entire Heliocentric crusade to conform all their Gravimeter and Ring Laser Gyroscope measurements to the ideas of Gravity and Axio-Rotation are suddenly null and void. Absolutely, everything they are inferring to be the result of Gravity and Rotation can just as easily be interpreted as the result of "wobble" and fluid dynamic related perturbations from the Earth's dry land mass position over water. Afterall, all these reading they are getting are down on the microscale, which suggest they are detecting the current natural movement of The Earth's land mass over water.

Have you ever watched a large oil tanker on the water? It has a subtle rise and fall, a wobble, even torsion and spin from ocean currents. It moves. If you placed a Gravimeter and Ring Laser Gyroscope on it, you would get various IGSN71 Measurements and Ring Laser Gyroscope readings. Now what if that oil tanker was as the size of North America? Now, if you placed a Gravimeter and Ring Laser Gyroscope on it, you would get various IGSN71 Measurements and Ring Laser Gyroscope readings approaching those expected and predicted by The Heliocentric Theory of Gravity.

Absolutely everything in Gravimeter and Ring Laser Gyroscope measurement reading would be skewed by land mass that was not firmly anchored at the subterranean depths below the oceans. And so, to jump to the conclusion that all Gravimetry and Ring Laser Gyroscope readings are magically some kind of conformation of a spinning ball Earth that has invisible Gravitons is a huge leap of Faith. And more accurately, it a great example of Measurement Interpretation Bias and Experimental Confirmation Bias.

Its bad science.

Its pseudoscience skewed by a relentless fetish to filter and interpret all data through the myopic lens of The Heliocentric Theory.

Even the alleged "wobble" of Polaris would make sense if The Earth's land mass was, as various points where astronomical readings were executed, "wobbling" on the Earth's oceans. It would be ever so slight, EXACTY like the readings Astronomers are getting, The difference, of course, is that the CAUSE of the readings would be from floating land mass on a flat oceanic disc, as oppose to a spinning and orbiting space ball.

Ring Laser Gyroscope Limitations: Measurement Inaccuracies and Distortions Invalidating Earth's Axio Rotation Experiments

Optical Angular Encoder Installation Error Measurement and Calibration by Ring Laser Gyroscope

Abstract:

"This paper deals with the installation errors of an optical angular encoder (OAE). A harmonic model is proposed to describe the installation errors, including the effects of eccentricity, swash, and distortion."

https://ieeexplore.ieee.org/abstract/document/5406266

Distortion-Induced Magnetic Field Bias In The Square Ring Laser

Abstract

"The square ring laser, unlike the triangular ring, can exhibit a bias due to the combined effect of slight nonplanar deformations (a reciprocal rotation effect) and an applied magnetic field (a nonreciprocal rotator). In this paper, the bias as a function of net tilt out-of-plane, magnetic field and net mirror retardance is calculated and its importance as an error source in the planar square ring laser gyroscope is discussed."

https://www.spiedigitallibrary.org/conference-proceedings-of-spie/0412/0000/Distortion-Induced-Magnetic-Field-Bias-In-The-Square-Ring-Laser/10.1117/12.935820.short?SSO=1

Effect Of Backscattering On Nonlinear Distortions Of The Scale Factor Of A Laser Gyro With A Rectangular Bias

Abstract

"We report the results of measurements of nonlinear scale factor corrections, resulting from the backscattering effect in a laser gyro with a rectangular bias."

https://iopscience.iop.org/article/10.1070/QEL17095/meta

Effect of Unequal Intensities of Counter-Propagating Waves on the Frequency Response of Laser Gyroscopes

Abstract

"Frequency response of a laser gyroscope was studied by numerical modeling of a complete system of equations describing it. The calculation

results are compared to the results of experimental measurements taken on a precision dynamic test bench. The frequency response was measured for a gyroscope based on a four-mirror ring laser with a non-planar contour, operating on He–Ne active mix at the wavelength of 632.8 nm. In the gyroscope under study, the sign-variable dither was implemented on the basis of Zeeman magnetooptical effect. The relationship between the measured and designed values of the frequency response distortions has been found. The relationship between the frequency response distortions in a laser gyroscope and inequality of field intensities of the counter-propagating waves (CPW) has been numerically calculated and confirmed by experiments."

https://link.springer.com/article/10.1134/S2075108720040021

Nuclear Radiation Vulnerability Of Ring Laser Gyroscope

Abstract

"In spite of the specific differences between laser gyro designs, all ring laser gyroscopes have certain similar elements such as the lasing medium itself, mirrors, windows, and optical detectors. Laser gyros may also include path length control mechanisms, dither motors, magnetic mirrors, and/or Faraday cells. Ring laser gyroscopes are very attractive for a wide range of commercial and military systems. In many military applications they must survive and continue functioning after nuclear radiation exposures. This paper identifies nuclear vulnerabilities of several components common to most ring laser gyroscopes. Particular attention is directed to radiation coloration and bleaching of optically transparent low thermal expansion materials and radiation responses of optical photodetectors."

https://www.spiedigitallibrary.org/conference-proceedings-of-spie/0157/0000/Nuclear-Radiation-Vulnerability-Of-Ring-Laser-Gyroscope/10.1117/12.965486.short

Light Intensity Variation Caused By PZT Distortion And Its Influence On Bias In Four-Mode Laser Gyro

"Piezoelectric transducer(PZT) is usually used as feedback control device to maintain cavity length in four-mode laser gyros. The distortion of the PZT in the process of pushing and pulling would result in cavity loss variation which further leads to variations of light intensity and bias. In order to confirm the bias stability of the laser gyro, both theoretical and experimental researches were performed on the bias variation induced by PZT distortion. According to the theoretical analysis, the bias variation is closely related to the intensity variation caused by PZT distortion. When light intensity varies by 10-3 relatively, the bias would vary 0.02 Hz. Both light intensity and bias were measured when the longitudinal mode number was changed. The experiment results agree well with the theoretical analysis. The bias shift caused by PZT distortion is on the order of 0.01 Hz in the current four-mode laser gyro. Therefore, its performance can be confirmed through improving the process technique of PZT. The study has reference value to the development of high performance four-mode laser gyro."

-- https://en.cnki.com.cn/Article_en/CJFDTotal-ZGXJ201301026.htm

Quantum Noise in A Dithered-Ring-Laser Gyroscope

Abstract

"The influence of quantum noise on the mean beat frequency ⟨⟨˙φ⟩F⟩t of a dithered-ring-laser gyroscope is considered. The corresponding Fokker-Planck equation is discussed and approximate analytical expressions and an exact expression for ⟨⟨˙φ⟩F⟩t in terms of

infinite-matrix continued fractions are obtained. The two approaches are checked against each other."

https://journals.aps.org/pra/abstract/10.1103/PhysRevA.29.230

The Bias of Ring Laser Gyroscope Exhibits a Non-Ignorable Characteristic of Drift When Its Temperature Changes

Abstract

The bias of Ring Laser Gyroscope (RLG) exhibits a non-ignorable characteristic of drift when its temperature changes, which is an important factor of reducing the navigation precision in inertial navigation systems. The limitations of least-squares fitting and neural network are pointed out and a new scheme of system-level temperature compensation of RLG bias based on Least Squares-Support Vector Machine (LS-SVM) is proposed. Temperature experiment of RLG bias is designed and carried out to validate the effectiveness of the proposed method. The traditional modeling method of least-squares fitting is also investigated to provide a comparison with the LS-SVM based method. Allan variance is used to analyze the error terms of RLG before and after compensation. The results show that: the bias instability of RLG output after it has been compensated by LS-SVM model is 1.32 × 10−3 °/h, which has decreased 8.57 × 10−3 °/h from that before compensation"

https://www.sciencedirect.com/science/article/abs/pii/S0263224111002958

Michael Toon Clown Prince of Gravity: Flat Earth Gravity Challenge

There is a mechanical engineer out in You Tube land, by the name of Michael Toon, who actually thinks he is a scientists, and so he started a You Tube channel called, MCToon, where he fancies himself a great debate expert on psychics. It is both hilarious and sad to see his videos because absolutely everything he utters is nothing more than the result of years of indoctrination. Watching his channel is like watching the mainstream news, but with a junior high school flavor to it. Toon sits in a room and drinks Tab sodas the entire show, while pontificating to an audience of remedial nerds.

The more I interreacted with Michael Toon, via email, the more his disingenuous and emotionally infantile nature came to the surface. He seems to do anything it takes, and with an almost desperate attitude, to attack and condemn anyone who disagrees with him, while censoring any information that might possibly point out his duplicitous and childish behavior, or paint him in an unfavorable light.

Obviously, Toon is not practicing science. He is practicing character assassination on anyone he disagrees with. If it was all about science, he would exhibit a far more fair, balanced, and honest approach to his exchanges with people.

The following exposition is about a contest he held, which someone had sent me information about. I did not take it very seriously and did not even read the contest directions, but the result of entering turned into a real fiasco, with Michael Toon doing a hit piece on me on his You Tube Live

Stream show. He also confessed to leaving a negative review to one of my Amazon books, and he said that he never even read my book. Then, I remembered who this joker was. I had contacted him about his negative review of my Amazon publication years ago, and asked him why he did it...it all came back to me...this childishly sulky petulant angry clown, Michael Toon.

That's is the type of character this guy is…shady and dishonest. He said he left the negative review because he did not like my book's topic: Enclosed Cosmology. This is a very angry and childish man. He dedicates his life to attacking anyone he can because he has no publications of his own, nor any original thoughts on anything. Every word coming out his moth is pre-programmed indoctrination.

On his You Tube show, MCToon, he has little NASA toy rocket in the background, and he wears a Star Wars shirt, as he drink multiple tab soda while ranting about Gravity and babbling about pseudoscience nonsense.

Gravity is his little fetish, like so many pseudoscientific layman.

Recap: The Folly of Michael Toon Clown Prince of Gravity: IGSN71 Measurement Interpretation Bias

The IGSN71 measurements that Michael Toon raves about are based upon the assumption that Gravity is real, and therefore, Michael Toon's entire Flat Earth Gravity Challenge contest is based upon the submitter obeying Scientism protocols, and Scientism rules, in order to arrive at Scientism conclusions. Essentially, Michael Toon et alia assume that Gravity exits in order to confirm Gravity exits, while using leveraged Scientism tests to confirm their bias. And they want the contestant to waltz into their methodological trap so that they can reject any data that does not subscribe

to the unscientific methodologies and pseudo-scientific technologies that they use.

Michael Toon's entire Flat Earth Gravity Challenge contest is a desperately biased attempt at railroading the contestant into the forgone conclusion that Gravity is measured by Gravimeter readings. It is a Scientism snare set for the unsuspecting participant.

This is one reason why I did not take his contest parameters seriously…because they are methodologically biased and only applicable if you already assume Gravity exits and that testing for Gravity with Gravimeters is a viable means of confirming Gravity's existence, which after researching Gravimetry, and it's internal inconsistencies, interpolative assumptions, and interpretive inaccuracies, I do not believe.

Gravimetry is a study in Measurement Interpretation Bias and Experimental Confirmation Bias since regardless of what vibrations or movements Gravimeters measure, those who read the measurements will simply label the reading as a confirmation of Gravity because that is what they are testing for. If they were testing for electromagnetism, then they would catalogue their readings as confirmation of electromagnetism, etc… Measurement Interpretation Bias and Experimental Confirmation Bias is a huge problem amongst those studying Gravity because the stakes are so high for them to demonstrate Gravity exist, they get sloppy in their analysis and refuse to consider any other cause for their test results other than Gravity.

Predicted Mechanisms for Downward Acceleration

Measurements of attraction do not confirm Gravity.

Using The International Gravity Standardization Net 1971 (I.G.S.N.71 measurements does not confirm Gravity. It only gives descriptive data

concerning physical motion, and that is all. You do not need to provide measurements to confirm a force. Measurements only describe behavior, but they do not give the casual locus of that behavior.

They are only measurements of material interaction. The cause can be from any number of things inherent within the properties of matter. The Predicted mechanism for downward acceleration can include any number of well-known mechanism, including various dielectric, electro static, quantum electro dynamic, and electromagnetic forces, ferrous and nonferrous electromagnetism, and the bipolarity the Aetheric wind. But assuming it is some special property called Gravity is not a scientific claim.

Again, more empirically speaking, objects fall or rise due to the relationship between:

1. Object Density

2. The Index of Buoyancy of an Object

3. Dielectric Forces

4. Electromagnetic Forces

5. Aerodynamic Resistance

6. Thermodynamic Exchange

7. The Result of an Object in a Particular Atmospheric Medium

False Assumption in the Heliocentric Priesthood

And so, you see, he was not wanting to discuss anything intelligently. He only wants to corner and kill his prey in his Scientism trap called Flat Earth Gravity Contest. If I deviated from a discussion of International Gravity Standardization Net 1971 (IGSN71), he immediately deflected away from anything I said and zeroed back on his only data base: Scientism

assumptions from Scientism's Priests to confirm Scientism fantasies. You are not allowed to deny that Gravity exists. You are forced to accept it and then proceeded from there to refute it. But the reality, the burden of confirmation still remains upon the Heliocentric camp. Their claim is wild. They are claiming that objects possess magical invisible attractive powers, and ignoring the role of various dielectric, electro static, quantum electro dynamic, and electromagnetic forces operate to manipulate mass in relationship to mass.

Michael Toon refused to entertain anything in my paper that did not explicitly provide a selection of 5 different IGSN71 measurements. He literally ignored all of it and refused to consider any of my points. He was narrow and myopic in every response to me. If I did not play by his Scientism rules, he would not hear it.

Then when I used the widely used term "confirmation", he said I was a pseudo scientist and I must use the word "confirm". The semantic game he plays is childish and totally unscientific.

Further, Michael Toon claims that I did not include a predictive mechanism for the downward acceleration independent of mass, when in fact, my entire paper was about acceleration without mass as a dependent variable. It was like he has no reading comprehension at all.

Then he resorted to ad hominem attacks and called me a "science denier"…typical amateur student move.

I have done about 12 radio shows as the guest speaker this year... I have essentially stated by case on innumerable topics already...not just Enclosed Cosmology. Most people who know my work know the empirical stance I take on science. If you cannot demonstrate your claim using empirical science, I will not accept it. Gravity is far from being demonstrated or confirmed in any way. It's a religious claim, whereas Newton's math is, contrarily and effectively accurate.

And people try to find some people who conform to their epistemological apparatus for inquiry...to confirm what they already believe in…a fantasy. And that epistemological apparatus is Scientism, and refuse to conform.

So now we know who this guy, Michael Toon, actually is…a frightened and amateur fanatic who has faith in a force that has never been empirically confirmed to exist. And he thinks "descriptive Newtonian physics" and measurements are confirmation of this invisible force emanating from mass, rather than just that… descriptive Newtonian physics.

Ultimately, like we see in so many Heliocentrists, Toon indulges in sophistry, double speak, and arithmetic artifice in order to circumvent the fact that he cannot confirm or confirm anything he is claiming He merely claims that Newton's math is representing some real tangible force, which even

Newton was clear not to claim.

Measurement Instrument of Gravity

The gravimeter is the measuring instrument of the gravitational field of Earth at specific locations. The instrument works on the principle of measuring constant downward acceleration of gravity. There are two types of gravimeters: absolute and relative. Absolute gravimeters measure the local gravity in absolute units (Gal). Absolute gravimeters are compact (Autograv CG-5 model) and used in the field. They work by directly measuring the acceleration of a mass during freefall in a vacuum. An accelerometer is rigidly attached to the ground.

Relative Gravimeters are extremely sensitive, specially assembled, spring-based instruments carrying a fixed mass (m). The principle is that the changes in gravity will result in a change in weight of fixed mass $g(m + \delta g)$ with change of location. Thus the length of the spring will differ slightly (Fig. 6.9) with change of location. The spring extension is recorded by suitable

optical, mechanical, or electrical amplifications with high precision. The Gravimeter is calibrated at regular intervals at a base station where The Absolute Value of Gravity is known.

Absolute Gravity values at survey stations are obtained with reference to the International Gravity Standardization Network.

Michael CarToon's Bible: ***How to Talk to a Science Denier: Conversations with Flat Earthers, Climate Deniers, and Others Who Defy Reason***

So, while Toon did his little MCToon You Tube clown act, he brought up a screen shot of my book, ***Black Hole Sun***, and of course, in true Michael Toon form, he has never read it but started to talk about its contents. Then, he held up a book entitled, ***How to Talk to a Science Denier: Conversations with Flat Earthers, Climate Deniers, and Others Who Defy Reason,*** and called me a "science denier".

It was a lot like what 7-year-old children do to each other on the playground…infantile name calling. And, essentially, his "science denier" name calling became a talking point for Toon. It was as though unless you are spouting fully indoctrinated information, you were suddenly a "science denier". It felt a lot like he was a KKK Leader labeling people as n*ggers. It had the same flavor and spirit as that…simplistic thinking with a prejudicial tone.

Amazon blurb on: *How to Talk to a Science Denier: Conversations with Flat Earthers, Climate Deniers, and Others Who Defy Reason:*

"Climate change is a hoax - and so is coronavirus." "Vaccines are bad for you." These days, many of our fellow citizens reject scientific expertise and prefer ideology to facts. They are not merely uninformed - they are

misinformed. They cite cherry-picked evidence, rely on fake experts, and believe conspiracy theories. How can we get them to change their minds and accept the facts when they don't believe in facts? In this book, Lee McIntyre shows that anyone can fight back against science deniers, and argues that it's important to do so. Science denial can kill.

Drawing on his own experience - including a visit to a Flat Earth convention - as well as academic research, McIntyre outlines the common themes of science denialism, present in misinformation campaigns ranging from tobacco companies' denial in the 1950s that smoking causes lung cancer to today's anti-vaxxers. He describes attempts to use his persuasive powers as a philosopher to convert Flat Earthers; surprising discussions with coal miners; and conversations with a scientist friend about genetically modified organisms in food. McIntyre offers tools and techniques for communicating the truth and values of science, emphasizing that the most important way to reach science deniers is to talk to them calmly and respectfully - to put ourselves out there, and meet them face to face." --Amazon

Michael Looney Toon's Flat Earth Gravity Contest

And so in a nutshell, Michael Toon is a huge advocate in the reality of:

1) Climate Change
2) The Covid Virus
3) The Health Benefits of Vaccinations and The Covid Vaccine
4) The Heliocentric Model
5) Evolutionary Theory
6) The Big Bang
7) Gravity
8) Alien Life

9) The Usefulness of 5G

And so, Toon is just a big, Tab soda drinking, wind bag of petulant nonsense. He truly is The Clown Prince of Gravity, as well. Nobody makes more of a fool of himself oi public forums and shows than Mr. Michael Looney Toons.

And so, to begin with, first of all, Michael Toon, if Gravity was strong enough to hold you stuck to a spinning ball, you would not be able to move your arms or legs.

Your whole body would be riveted down at all times.

That said…

From Michael Toon's Website

"Preface:

The Law of Gravitational Attraction states that every particle of matter in the universe attracts every other with a force varying directly as the product of the masses and inversely as the square of the distance between them. Sometimes explained simply as mass to mass attraction. This manifests as a downward force with an acceleration of about 9.8 meters per second squared on objects on the surface of the Earth.

The magnitude of the downward force is slightly counteracted by the rotation of the Earth. This centrifugal force results in an upward force that slightly reduces the downward force.

The magnitude of the force is also affected by the slight oblateness of the Earth and the elevation of the observation because this changes the distance between the centers of mass. There are other factors that affect the measured downward force however, the magnitude of the effects is exceedingly small in comparison to the previously mentioned forces.

Many flat Earthers claim Gravity does not exist. If Gravity does not exist something must be offered to explain the measured downward force.

Challenge:

The challenge is to provide an alternative mechanism to accurately predict the measured downward force at different points on the Earth without using mass in any way. This means that mass cannot be hidden or obscured in any part of the formula, directly or indirectly. Neither can constants be included that incorporate the mass of the Earth or the gravitational constant.

The alternative mechanism must be described such that the predicted downward force for any location and elevation on Earth can be calculated given the latitude, longitude, and elevation. Other data may be input to the formula if the data does not include measurements specific to the previously measured values for the strength of Gravity or acceleration at the locations.

I provide a method, called the globe mechanism, to calculate the force due to Gravity which uses the Law of Gravitational Attraction formula, the centrifugal force due to Earth's rotations, and the elevation of the observation point according to the WGS84 model. The exact formulas and methods are detailed in the Notes section at the bottom of this document.

It is known that the measured downward force is not exactly the same value everywhere on the surface of the Earth. Precision measurement of this force reveals slightly different values in different areas of the Earth. Several international efforts have unified the measurement of the downward force. The largest and most current one being The International Gravity Standardization Net 1971 (IGSN 71). There are thousands of documented IGSN 71 Gravity Stations all over the world. Many of these are publicly available.

Both methods will be used to predict the measured downward force at 10 published IGSN 71 Gravity Stations and compared to measured values. I will select 5 IGSN 71 Gravity Stations and the challenger will select 5 IGSN 71 Gravity Stations.

[Be very descriptive and avoid ambiguity.]

Acceptance parameters:

Each IGSN 71 Gravity Station will have the globe mechanism predictions and alternative mechanism predictions calculated. The differences between predicted values and measured values will be summed for all IGSN 71 Gravity Stations for each mechanism. The mechanism with the smallest total error shall be declared the winning mechanism.

[Provide clear parameters to define a successful solution. Include appropriate evaluation methodologies and acceptable margins of error.]

[Real world measurements absolutely require a realistic margin of error or do not qualify as a Legit Challenge.]

Submission method:

Any combination of the following methods are acceptable:

* YouTube Video.

* Web page hosted on your sever

* Email submissions to mctoon@mctoon.net, entries submitted this way will be posted in their entirety on mctoon.net web site or via video on MCToon's YouTube channel.

* Posting on a publicly accessible place on the internet

If there are multiple published submissions, the submitter must identify a single method as the authoritative method. The authoritative method shall be the only method evaluated when judging the challenge.

[Video or web page or email or YouTube comment or whatever is desired.]

Submission communication method:

A notification of the submission must be sent via email to mctoon@mctoon.net. A confirmation of receipt via email will be sent back to the submitter. The submission is not complete until confirmation of receipt has been received via email to the submitter.

[Method to contact challenge organizer when a challenge is submitted. This could be a comment on the original YouTube challenge video, however these sometimes get missed so an additional method such as email, Twitter DM, SMS message, etc. can be specified to avoid missing a submission.]

Prize:

FOH$10,000 and MCToon Flat Earth trophy.

MCToon Flat Earth Trophy is a hand-made trophy by MCToon himself. The trophy comes with a flying disc on the top. This also includes a globe to place on top. I ask that this trophy be displayed in a place of honor in recipients residence and ideally be featured in many, many videos. We also ask that the winner of the trophy issue challenges to confirm flat, spherical, alpaca, or whatever shaped Earth the winner desires. This trophy would then be passed on to the next recipient. Challenges must be issued using the Legit Challenge Framework.

FOH$10,000 is $10,000 of the money won from the Flat Out Hero's $100,000 challenge that was won by MCToon's submission. I will direct Flat Out Hero to send the $1000 monthly payments to the winner of the challenge. Should other challenges win and deplete the winnings before a

winning solution is declared to this challenge no monetary prize shall be awarded.

[Clearly state the prize including the type of currency.]

Timing and Number of solutions:

The challenge is immediately open for all entries. At most one single winner shall be awarded.

[If more than one solution is allowed, specify. If it's only the first correct solution, specify.]

Escrow:

Flat Out Hero is holding the money in escrow.

[For monetary prizes escrow is preferred as it adds legitimacy.]

Judge:

MCToon is primary judge.

[Who is the judge and how it will be judged.]

Arbitration:

Should an entry be submitted but rejected by the judge, and this rejection not accepted by the submitter, a panel of three experts shall be named in accordance with the Legit Challenge Framework specification.

The judges must be qualified in one of the following ways:

* Professional mechanical, architectural, structural, or aerospace engineer with at least 5 years' experience and currently working in the field

* Mechanical, architectural, structural, or aerospace engineering professor at college level or higher with at least 5 years' experience and currently teaching at that level

* Physics teacher with at least 5 years' experience teaching physics at high school or college level and currently teaching at that level

[Arbitration is required, this is to state the qualifications of the judges. See Arbitration section of the framework. Qualifications for the judges on the panel must be specified.]

Expiration:

The challenge has no expiration date. If a winner is ever declared and prizes are awarded, the challenge expires.

[When, if ever, does the challenge expire. If the challenge organizer specifies the challenge can end anytime with an announcement, specify the method of the announcement.]

Notes:

Here is the method I will use to predict the magnitude of the downward acceleration for the globe mechanism.

I will use the value for G, the Gravitational Constant, and the mass of the Earth, as measured by the experiment performed at the University of Washington, Seattle by Jens H. Gundlach and Stephen M. Merkowitz with the published title of "Measurement of Newton's Constant Using a Torsion Balance with Angular Acceleration Feedback". https://arxiv.org/abs/gr-qc/0006043

- This is the value of G to be used: 6.674215 × 10^-11 m^3 * kg^−1 * s^−2
- The value of the Earth's mass to be used: 5.972245 * 10^24 kg

I will use WGS84 system to calculate the distance from each IGSN 71 Gravity Station location to the center of mass of the Earth. Specifically I will be using this web site to output the distance to the center of the Earth's mass: https://www.summitpost.org/distance-to-the-center-of-the-Earth/849764. This web site details all the formulas and methods used to produce the calculations. Feel free to examine formulas documented on the page and compare to the JavaScript source code within the web page.

I will also use this web site to calculate the linear speed due to the Earth's rotation for the coordinates provided.

As the above listed site requires longitude and latitude coordinates be provided as a decimal degree value instead of degrees/minutes/seconds I will use this site to convert from degrees/minutes/seconds to decimal degrees:

https://www.rapidtables.com/convert/number/degrees-minutes-seconds-to-degrees.html

To calculate centrifugal force I use this online calculator:

http://www.calctool.org/CALC/phys/newtonian/centrifugal

I will use the formula for Newton's law of universal gravitation: f = G * M * m / r^2

Where:

f is the force of Gravity

G is the gravitational constant

M and m are the masses of the objects. I will use M to represent the mass of the Earth.

r is the distance between the center of mass of the objects

Gravimeters measure the acceleration due to Gravity in “gal” or “milligal” so the formula will be used to output value in m/s^2 which is converted from gals of milligals.

Using the formula f=m*a, taking “m” to be the mass of an object accelerated towards Earth and substituting for “f” into Newton's law of gravitation formula:

m * a = G * M * m / r^2

The “m” factors cancel leaving this equation:

a = G * M / r^2

I will use this to calculate the non-centrifugal acceleration due to Gravity.

Next I will calculate the centrifugal force using this formula:

f = m * v^2 / r

Where:

f is the centrifugal force

m is the mass of the object

v is the lateral velocity

r is the distance between the center of mass of the objects

The calculated centrifugal force is subtracted from the non-centrifugal acceleration due to Gravity to give the final predicted acceleration due to Gravity.”

Micheal Toon's Response to My Submission

"On 2021-11-16 Gregory Garrett emailed his submission to my $10,000 Gravity challenge.

From the challenge: "The challenge is to provide an alternative mechanism to accurately predict the measured downward force at different points on the Earth without using mass in any way."

This means a mechanism to predict the downward acceleration at different locations on the Earth. These differing measurements are cataloged via IGSN71. The submitter is to provide a selection of 5 different IGSN71 measurements, I will provide 5 different IGSN71 measurements.

My challenge includes a predictive mechanism for the downward acceleration based on mass attracting mass and the globe model. Full details are in the challenge.

The two mechanisms are then both applied to get a prediction for each of the10 measurements. If the challenger's predictive mechanism has a smaller margin of error, they win.

Gregory's submission did not include the 5 IGSN71 measurements. Feel free to send them Gregory.

Neither did Gregory's submission include a predictive mechanism for the downward acceleration independent of mass.

Thank you for the submission, but it doesn't meet the requirements.

If you would like to present your case live on YouTube, I would be happy to host you.

If you disagree with my decision, we can move to arbitration where a panel of 3 judges is selected. Please let me know if you wish to pursue this option. There is a section in the challenge outlining this process including the necessary qualifications of the judges.'

Michael Toon's Notes:

Here is the method I will use to predict the magnitude of the downward acceleration for the globe mechanism.

I will use the value for G, the Gravitational Constant, and the mass of the Earth, as measured by the experiment performed at the University of Washington, Seattle by Jens H. Gundlach and Stephen M. Merkowitz with the published title of "Measurement of Newton's Constant Using a Torsion Balance with Angular Acceleration Feedback". https://arxiv.org/abs/gr-qc/0006043

This is the value of G to be used: 6.674215 × 10^-11 m^3 * kg^−1 * s^−2

The value of the Earth's mass to be used: 5.972245 * 10^24 kg

I will use WGS84 system to calculate the distance from each IGSN 71 Gravity Station location to the center of mass of the Earth. Specifically I will be using this web site to output the distance to the center of the Earth's mass: https://www.summitpost.org/distance-to-the-center-of-the-Earth/849764. This web site details all the formulas and methods used to produce the calculations. Feel free to examine formulas documented on the page and compare to the JavaScript source code within the web page.

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To calculate centrifugal force I use this online calculator:

http://www.calctool.org/CALC/phys/newtonian/centrifugal

I will use the formula for Newton's law of universal gravitation: f = G * M * m / r^2

Where:

f is the force of Gravity

G is the gravitational constant

M and m are the masses of the objects. I will use M to represent the mass of the Earth.

r is the distance between the center of mass of the objects

Gravimeters measure the acceleration due to Gravity in "gal" or "milligal" so the formula will be used to output value in m/s^2 which is converted from gals of milligals.

Using the formula f=m*a, taking "m" to be the mass of an object accelerated towards Earth and substituting for "f" into Newton's law of gravitation formula:

m * a = G * M * m / r^2

The "m" factors cancel leaving this equation:

a = G * M / r^2

I will use this to calculate the non-centrifugal acceleration due to Gravity.

Next I will calculate the centrifugal force using this formula:

f = m * v^2 / r

Where:

f is the centrifugal force

m is the mass of the object

v is the lateral velocity

r is the distance between the center of mass of the objects

The calculated centrifugal force is subtracted from the non-centrifugal acceleration due to Gravity to give the final predicted acceleration due to Gravity.

--Micheal Toon

My Live Response to Michael Toon Online

Greg: "As I have mentioned repeatedly, but your comprehension seems really slow on the uptake for some reason, ultimately, like we see in so many Heliocentrists, you are simply indulging in sophistry, double speak, and arithmetic artifice in order to circumvent the fact that you cannot confirm or confirm anything you are claiming You are merely claiming that Newton's math is representing some real tangible force, which even Newton was clear not to claim.

My fear is you actually do not understand your own model, which I see a lot. Gravity, in The Copernican Cosmological Model, is caused by the bending of space-time due to the presence of matter at a particular point in space-time. So, Gravity is caused by every single particle, even two people

standing in front of each other exert a very small gravitational force on each other. Gravitational force will exist although it will be less due to the decrease in mass by removing the molten core, by the formula G=Mm/r2 where G is gravitational force, M is mass of the Earth, M is mass of the object being pulled, and r is the distance of the centre of the Earth from the object.

There is a theory that the magnetic field of the Earth is caused by the revolution of the molten core(with metal ions) which create an effect similar to a current carrying loop. Removing the molten core would affect the magnetic field of the Earth, not the gravitational field.

What you have is one unconfirmed assumption heaped upon another unconfirmed assumption, heaped upon another unconfirmed assumption, heaped upon another, and nothing more, spiced with descriptive measurements that are related to physical; behavior only, and NOT to any causal antecedent to those measurement like you imagine in your mind as Gravity.

And as far as mass attracting mass is concerned, it is widely known that various dielectric, electro static, quantum electro dynamic, and electromagnetic forces operate to manipulate mass in relationship to mass. Inventing a extra invisible fictional force emanating from mass is both unnecessary and presumptuous. No person has ever confirmed that massive celestial bodies are floating in Outer Space attracting each other in a mass attracts mass fashion, as Sir Isaac Newton's Universal Law of Gravitation (F=Gmm/r2) describes. The math only describes and predicts physical behavior. It does not confirm any causal force emanating from mass.

I am not sure if you see yet how far you have backed yourself into as corner with your epistemological pretensions. I did not do it. It did not have to. You did it to yourself with your endless infinite regress of assumptions not based on real science. You are so deep into Scientism now that you simply cannot see where you are. I am trying to be gentle about this, but it seems to

be such a persistence malady with some people. They simply cannot see that descriptive mathematical equations and laws and predictive descriptions to not equate to real physical casualty. You are lost in the math and have forgotten the real issue here: "Is Gravity a real force with a real demonstrative and empirical locus of causality?"

You can post little Scientism nuggets you find all day instead of using your brain, but it will not help your case, as you are seeing. I realize you need to double down to not appear weak or God forbid, "WRONG". But, you will find a lot more intellectual satisfaction in admitting that Gravity is just a wild unsubstantiated fantasy, as even Newton claimed."

Michael Toon then sends link with lab data showing little balls attracted to each other…and shows the "peer review" stamp to give it clout, and then claims:

"Gwabbbity!!!"

And as far as mass attracting mass is concerned, it is widely known that various dielectric, electro static, quantum electro dynamic, and electromagnetic forces operate to manipulate mass in relationship to mass.

Gravity is unnecessary.

Michael Toon: "Addressed in the measurements that you refuse to look at. Because you are a textbook science denier."

Greg: "And 22 peer-reviewed experiments confirming Gravity. Science deniers won't like this." Seriously? Did you actually attend a university?? "Hey, let's make up a fictional force and then make experiments that do not confirm this force, but can be peer reviewed to say they do, ok? Ridicule anyone who disagrees. Exclude the possibility of other forces causing our results in order to maintain our initial pseudoscience bias. Yeah, got it!"

Link to Submission: https://mctoon.net/Gravity-challenge-gregory-garrett/?fbclid=IwAR0jd27ZLv8E2qhxtTdSjVREf3uyxl9zf51sdsbvQUccEh76rYjzbQeohIU

Now, I Admit, I Did Not Take Michael Toon's Submission Requirements Seriously

Now, I admit, I did not take his submission requirements seriously since they railroad you into obeying Scientism principles and submitting to Scientism Priests with their Scientism apparatus. I told him I read his submission requirements but, it was all kind of a joke from my end. The contest was just an excuse for me to explain to Michael Toon him how absurd his Gravity fetish was by presenting Newtonian mechanics to him as a means of teaching him how descriptive physics does not necessarily equate to physical reality.

Afterall, you can create any experiments you want to test for Gravity, as well as create any equation and laws you want to describe downward acceleration, etc…, but the casual antecedent to all the motion you are measuring is not revealed by your mathematics. All you are doing is making predictions and descriptions of physical events. The force behind the observations is yet unknown.

So after submitting a Flat Earth Gravity Challenge to Michael Toon (MCToon), I spoke with him for about an hour on DM, and he could not get past the idea that I needed to provide Gravity measurements from different places on the Earth or nothing. Talk about rigid and narrow thinking. His whole approach was that you had to play by strict Scientism rules and use Scientism apparatus and tests to play.

He starts with Gravity as an irrefutable fact in order to claim Gravity as an irrefutable fact. Talking him was like listening to someone go in circles.

He even said, "Gravity does not need proving. It's a scientific fact."

And so he thew a tantrum and he insisted that a mechanism to predict the downward acceleration at different locations on the Earth, as cataloged via IGSN71, was all that was allowed and any other discussion was forbidden. He ranted that the submitter was to provide a selection of 5 different IGSN71 measurements, and then he will provide 5 different IGSN71 measurements. I did not take any of this seriously, and this really pissed him off.

He acted like a petulant child who had his ball taken away from him. Watch him on his MCToon You Tube Channel, and you see that he is an overgrown child with a huge anger problems.

Michael Toon Lies About The Bible on His Website: Isaiah 40:22

Michael Toon claims the Bible says The Earth is ball, but actually he lied. He wrote out Isaiah 40:22 this way on his website:

God sits high above the round **BALL** of Earth.

The people look like mere ants.

He stretches out the skies like a canvas—

yes, like a tent canvas to live under.

But this is what Isaiah 40:22 actually says:

It is he who sits above the **CIRCLE** of the Earth,

And its inhabitants are like grasshoppers

Who stretches out the Heavens like a curtain

And spreads them like a tent to dwell in.

Michael Toon simply lied on his website to make people think that the Earth is a ball. The Bible says that The Earth is a circle, not a ball, and therefore it is flat, not spherical

MCToon: Why Don't Things "Fall" Up?

People always say, "What makes things fall down? In must be Gravity." But no, it is just the fluid dynamism of denser and less dense objects in a medium. Gravity is not necessary, there is no magical force pulling things down. You might as well say, "What is causing Helium balloons to "fall up." They rise so surely there is some magical directional force pulling the balloon up, right?

No.

Again, it is just a matter of the mechanics of density in a medium.

No force is pulling down or up.

It's just the dynamism of objects finding equilibrium in various mediums with pressure gradients.

Toon's Archaic Radius of the Earth Measurements

So, not surprisingly, Miachael Toon's "Radius of the Earth Measurements", as per his website, are based upon publications from 1830 to 1909, and nothing more recent. For all his extreme braggadocio and hubris concerning his ability to understand science, is it not odd that he cannot find

any current research concerning the radius of The Earth? This is typical of charlatans' like Toon. His whole approach is to mix a concoction of skewed science, whimsy, theoretical mumbo jumbo, Scientism assumption, cherry-picked mathematics, and theoretical gobbley goo.

Toon's Archaic Publications:

- **George Biddel Airy, Esq., A.M, F.R.S., Astronomer Royal**

Originally Published 1830

Encyclopedia Metropolitana, Volume V, Article: Figure of the Earth

Pages 185-260

Specific numbers on Page 240

a = 20,923,700 feet = 6,377,543.76 meters

b = 20,853,810 feet = 6,356,241.288 meters

- **Alexander Ross Clarke**

Published 1833

Account of the Observations and Calculations, of the Principal Triangulation; and of the Figure, Dimensions and Mean Specific Gravity of the Earth as Derived Therefrom

Survey of Great Britain

a = 20,927,005 feet = 6,378,551.12 meters

c = 280.4 feet = 85.47 meters

https://books.google.com/books?id=DKELAQAAIAAJ

- **Friedrich Wilhelm Bessel**

Published 1841

Astronomische Nachrichten 333 and 438

a = 3,272,077.14 toises = 20,922,829.22 feet = 6,377,278.35 meters

b = 3,261,139.33 toises = 20,852,888.96 feet = 6,355,960.55 meters

Astronomische Nachrichten 333:

https://books.google.com/books?id=44VCAQAAMAAJ&pg=PA333&lpg=PA333

Astronomische Nachrichten 438

https://books.google.com/books?id=3tLAyPYQlyEC&pg=PA55&lpg=PA55

- **Sir George Everest**

Published 1847

Account of the Measurement of Two Sections of the Meridional Arc of India between the Parallels of 18° 3' and 29° 30'

a = 20,920,902 feet = 6,376,690.93 meters

b = 20,853,642 feet = 6,356,190.08 meters

https://books.google.com/books/about/An_Account_of_the_Measurement_of_Two_Sec.html?id=ne82AQAAMAAJ

- **"Transcontinental Triangulation and the American Arc of the Parallel"**

Published 1900

Ocean to ocean survey. Shows triangulation with spherical excess.

Page 221 for Spherical Excess

From page 901 of the PDF, number 3 in the list is the primary result of this survey.

a = 6,377,912 meters

b = 6,356,309 meters

ftp://ftp.library.noaa.gov/docs.lib/htdocs/rescue/cgs_specpubs/QB275U35no41900.pdf

Direct PDF Download: Transcontinental Triangulation and the American Arc of the Parallel

- **"The Figure of the Earth and Isostasy from Measurements in the United States"**

Published 1909

Used the results from several surveys to determine the equatorial and polar radius of the earth.

Page 174 has the conclusions of the computations.

a = 6,378,283±34 meters

b = 6,356,868 meters

https://hdl.handle.net/2027/hvd.hnwwbh

--https://mctoon.net

Toon's Only Evidence of the Earth's Curve Comes From Books Published in 1900 and 1906

Essentially, Michael Toon has no empirical observations or measurement of The Earth's curvature. He has no photos, not films, not sightings, no evidence at all. He only has books that over one hundred years old saying The Earth possesses curvature. This lack of curvature confirmation, itself, reveals the comical nature of Michael Toon's NASA Space Ball crusade.

- ***History of the Determination of the Figure of the Earth from Arc Measurements,*** **1906**
- ***Transcontinental Triangulation and the American Arc of the Parallel,*** **1900**

--https://mctoon.net

Toon's Thinks, "Everyone Has To Be in On It"

Michael Toon likes to state in his You Tube videos that Flat Earthers think everyone would need to be in on The Heliocentric deception in order for it to be successful. He thinks that Flat Earthers think millions and millions of NASA employees, geophysical surveyors, Astrophysicists, Astronomers, Gravimeter engineers, etc…would need to be consciously trying to deceive the world. The stupidity of his statement is obvious to anyone who knows

how governments have various departments in order to keep everything compartmentalized. Just as NAZI Germany did so well, most governments administer information on a "need to know basis". The Astronomer that is doing measurement for NASA does not need to know that The Heliocentric Model is a fantasy. All he needs to do is do his job and think that his findings support the Heliocentric fantasy in his head.

Additionally, you can still dedicate your life to taking Gravimeter readings and yet have no idea that you are merely measuring any imaginably cause of vibration. The point is that it is not that difficult to perpetuate The Heliocentric Deception. All the epistemological cartels need to do is to keep asserting that The Earth is a sphere and just about every scientist, pilot, engineer, Astronomer, Astrophysicists, film producer, NASA employee, layman, etc… will continue to perceive The Earth this way, and interpret all their data though the filter of this erroneous perception. Those who disagree with this erroneous perception are silence by the gate keepers of peer review and marginalized into the nether, nether lands of academic oblivion through the use of mockery and ridicule.

Michael Toon is a brainwashed gate keeper, and does not know it, no doubt.

He is what Lenin called, a "useful idiot".

Michael Toon's Biggest Follies: The Law of Universal Gravitation is a Predictive and Descriptive Tool Not a Confirmation of Gravity

Newton's Law of Universal Gravitation is expressed in a function:

$$Fg = G (m1 * m2 / r2)$$

Where:

- m1, m2 = the masses of the different objects
- r = distance between the object

G = gravitational constant: $6.674215\times10-11\ N \times kg–2 * m2$

From Michael Toon's Website:

"Should someone attempt to do this a good place to start would be offering a replacement for the gravitation formula mentioned above. The acceleration consistently measured all over the Earth matches the current formula, a different formula will need to, at the very least, output the same 9.8m/s2 measured on Earth's surface.

Then something to account for the confirmed variations at different locations will need to be confirmed."

Toon's Folly One:

Ok, so the mistake that Toon is making, over and over, is the claim that Newton's equation, Fg = G (m1 * m2 / r2), needs to be supplanted with new equation if one claims that Gravity does not exists. He repeatedly makes this mistake with everyone he talks to online. He does not understand is that Newton's equations are excellent predicators of physical behavior and are equally good at describing acceleration and motion. But that does not mean that Gravity is behind any of its predications and descriptions.

In other words, a new equation is not necessary in order to question the existence of Gravity. Toon's entire folly pivots around his insistence that a new equation must be arrived at to explain any deviations in International Gravity Standardization Net 1971 (I.G.S.N.71) measurements.

Toon's Folly Two:

"Then something to account for the confirmed variations at different locations will need to be confirmed."

Toon's secondary folly here involves assuming that Gravity is the only explanation for any "confirmed variations at different locations" in Gravimeter readings. Scientists claim it is Gravity, but with all the vibrations, atmospheric pressure differentials at different altitudes, barometric pressure variances, geological shifts and movements, natural sonic events, seismic frequencies, atmospheric thickness and atmospheric density variations, wildlife vibrations, storms, thermal fluctuations, geoelectric phenomenon, and electromagnetic wave patterns, and ferrous and nonferrous magnetic fields that rocks and minerals exhibit, the Gravimeter, at best, is simply a highly sensitive vibration detection box, nothing more.

When you apply Sir Isaac Newton's Universal Law of Gravitation (Fg = G (m1 * m2 / r2): Mass Attracting Mass to Gravimeter readings, you are merely collecting data on any number of natural environmental conditions and their variance at different altitudes and at different geographical locations. You are not detecting Gravity. You are simply measuring consistencies in any one of atmospheric pressure differentials at different altitudes, barometric pressure variances, geological shifts and movements, natural sonic events, seismic frequencies, thermal fluctuations, wildlife vibrations, storms, geoelectric phenomenon, and electromagnetic wave patterns, and ferrous and nonferrous magnetic fields that rocks and mineral exhibit.

My Initial Long Letter to Michael Toon Ensuing the Gravity Challenge Live Stream

Greg:

"Michael, now that the dust has settled a bit, and I have some time away from work to properly address a few things, I just wanted say that I

apologize for entering your contest without fully reading your contest directions. During the live stream, I was in a work meeting, and so I only had one eye on your channel, and was trying to do a little peripheral damage control, and a bad job at it, but yeah just wanted to apologize for that.

This is why I had to shut down my Facebook page. I could not concentrate on my work meeting and also try to explain everything I saw coming at me from your show audience at the same time. As you know, censorship involves the suppression or prohibition of any parts of books, films, news, etc. that are considered obscene, politically unacceptable, or a threat to security. But the crucial part of this is it involves censoring SOMEBODY ELSE.

Obviously, I was not censoring your show, nor did I have that power.

Nobody censored you.

A better example of censorship might be when one person attempts to block another person's book, article, film, etc… Not to beat a dead horse, but when you gave my book a negative review at Amazon, having never even read it, this constitutes a perfect example of trying to censor someone's work by devaluing it as much as possible in the public eye, and thereby seek to reduce its appeal. I was a little taken aback that you brought that up in your live stream, as it was years ago, and had nothing to do at all with my submission and contest you were discussing. Maybe you can inform us, including your You Tube channel audience, exactly what an Amazon book review from years ago has to do with your explicit rules of contest judgment?

I will remind you of your contest "Acceptance parameters":

"Each IGSN 71 Gravity Station will have the globe mechanism predictions and alternative mechanism predictions calculated. The differences between predicted values and measured values will be summed for all IGSN

71 Gravity Stations for each mechanism. The mechanism with the smallest total error shall be declared the winning mechanism."

Is there something I am missing, but where does an old Amazon review come into play, with respect to my submission, in a video you entitled, "$10,000 Gravity Challenge has a submission".

You'll have to inform us as to how that happens?

I am just urging for a little more professionalism, at least if you are honestly wanting to teach others and not just play public antagonist…just asking for more behavior commensurate to what you purport to be teaching.

Anyway…

My Apologies

When I said I read the contest directions, I meant I read what someone had emailed me regarding your contest. They did not email me the full directions. And so, I thought you were just holding a contest to evaluate ideas on acceleration. I had your contest directions page half open in my browser and never saw that the challenge was to provide an alternative mechanism to accurately predict the measured downward force at different points on the Earth without using mass in any way.

Again, my mistake for only reading what was emailed to me by a friend, regarding your contest.

That was absolutely my fault.

It just wasted your valuable time.

My deepest apologies.

Regarding Frank Drake

Greg:

"Now, in addition to Physics and Astronomy at UCLA, I took a fair amount of philosophy, so I have pretty strong convictions concerning epistemology. And so, though I find your approach to the topic of Cosmology both empirically anchored and level headed, I find it wanting in epistemological accuracy and strength, but that is just my personal opinion...take it or leave it. This is not a point for a debate. It is my opinion.

With regard to Frank Drake, he was in no way a Flat Earther. If he knew my views, he would laugh all the way to Crown College at UCSC, where I took Astrophysics classes from him. He is dead now, however. Drake was a strict Copernican Cosmologist, and even headed SETI. For Drake, it was all about proving that alien life existed.

I took Astrophysics from Drake at UCSC back in the 1980's. I had the honor of hanging out with him quite a bit outside of class, in private, and picking his brain about a number of things related to carbon and hydrogen distribution in The Cosmo. (The famous Drake Equation).

Drake was a member of the National Academy of Sciences where he chaired the Board of Physics and Astronomy of the National Research Council (1989–1992). He also served as President of the Astronomical Society of the Pacific. He was a Professor of Astronomy at Cornell University (1964–1984) and served as the Director of the Arecibo Observatory. As of 2010, he was involved in "The Carl Sagan Center for the Study of life in the Universe" at the SETI Institute. He is Emeritus Professor of Astronomy and Astrophysics at the University of California at Santa Cruz where he also served as Dean of Natural Sciences (1984–1988). He serves on the Board of Trustees of the SETI Institute.

He was a very gentle man, and extremely patient in his teaching style. I still miss him.

The Drake equation is:

$$N = R_* \cdot f_\mathrm{p} \cdot n_\mathrm{e} \cdot f_\mathrm{l} \cdot f_\mathrm{i} \cdot f_\mathrm{c} \cdot L$$

where:

N = the number of civilizations in our galaxy with which communication might be possible (i.e. which are on our current past light cone);

and:

R∗ = the average rate of star formation in our Galaxy

fp = the fraction of those stars that have planets

ne = the average number of planets that can potentially support life per star that has planets

fl = the fraction of planets that could support life that actually develop life at some point

fi = the fraction of planets with life that actually go on to develop intelligent life (civilizations)

fc = the fraction of civilizations that develop a technology that releases detectable signs of their existence into space

L = the length of time for which such civilizations release detectable signals into space

After knowing Drake for a few years back at UCSC, I think Drake would have absolutely loved your approach to physics, though you and I greatly disagree on the role of descriptive mathematics in confirming causal antecedents to physical phenomena. I love Newton's equations and they

describe and predict physical behavior very accurately. Whether they confirm The Graviton or Gravity…that's where you and I agree to disagree, as you already know.

I didn't know you had a You Tube channel until someone emailed me about your contest. I have been watching some of your old debates with who you call "Flerfs". They are very interesting. You raise some excellent points. It's good to see the point-counterpoint format of your channel. I think you are enticing at least some of the more sluggish Enclosed Cosmologists to look a bit deeper into their math and empirical approach. I like that about your channel, from the little I have seen. As I said, I did not even know you channel existed until a few days ago. Then you mentioned on your recent show that I had contacted you concerning an Amazon book of mine you gave a negative review of after not having read it, which was entirely perplexing to me, obviously, That's when realized who you were. But, anyway, that's all water under the bridge now.

It requires not further discourse.

The Heliocentric Definition of Gravity

And of course, I misspoke about my view of The Heliocentric definition of Gravity. I write about so many models, I sometimes skew things, and The Heliocentric and Enclosed Cosmological Models, are merely two of many models I examine. As you know there are many. Wikipedia lists nearly 46 different Cosmological Models going back to 1700–1100 BC. And so, in examining them, including The Heliocentric Model, I am juggling a lot of diverse historical and scientific data and information all the time on this topic, so I make mistakes. Apologies.

I had actually written this about The Heliocentric version of Gravity many years ago in a book about the epistemological cartels of London, oddly enough:

"According to The Heliocentric Model, there is a shared gravitational property to all matter, which accounts for what we call, "the gravitational force". Gravity is thought to be the result of a theoretical particle known as The Graviton. When we consider the homogeneous summation of these collective molecular vectors, resulting the spherical symmetry of The Earth, it results in an amalgamated downward force directed at The Earth's spherical center. A vector is an object that has both a magnitude and a direction. Geometrically, we can picture a vector as a directed line segment, whose length is the magnitude of the vector and with an arrow indicating the direction. The direction of the vector is from its tail to its head.

In theories of quantum Gravity, the Graviton is the hypothetical quantum of Gravity, an elementary particle that mediates the force of gravitational interaction. There is no complete quantum field theory of Gravitons due to an outstanding mathematical problem with renormalization in General Relativity. In string theory, believed to be a consistent theory of quantum Gravity, the Graviton is a massless state of a fundamental string."

--Gregory L. Garrett

Regarding Black Hole Sun

As for my Facebook page and the book**, *Black Hole Sun*,** the book is about the occult roots of the Theosophical Black Sun ideology, coming from Blavatsky. It is essentially an historical exposition. It is not about my supporting this ideology in any way, though I conjectured that electromagnetic light is what The Black Sun Cult was referencing, in an Hermetic and Kabbalstic context, of course,

The Black Sun (German: Schwarze Sonne) is a Nazi symbol, a type of sun wheel (German: Sonnenrad) employed in a post–Nazi Germany context by neo-Nazis and in some strains of Satanism. The symbol's design consists of twelve radial sig runes, similar to the symbols employed by the SS in their logo. It first appeared in Nazi Germany as a design element in a castle at Wewelsburg remodeled and expanded by the head of the SS, Heinrich Himmler, which he intended to be a center for the SS.

The evil nature of both The NAZI regime, as well as their identification with The Black Sun, is clearly examined in my book, ***Black Hole Sun***.

It's an history exposition, primary. Some of these cults used the Flat Earth map in their ancient ideological frameworks. Naturally, I am in firm opposition to occultism, as all my books clearly illustrate.

Enclosed Cosmology and My Research

Enclosed Cosmology is not my core writing topic these days at all. Transhumanism, Artificial Intelligence, and the roll of quantum computing and nano synthetic biology in relation to the arrival of a Fourth Industrial Revolution seem to take up most of my time, as a writer. The velocity, scope, and systems impact between these intersecting fields is both daunting as well as rather mercurial. The speed of current breakthroughs has no historical precedent. When compared with previous industrial revolutions, the Fourth is evolving at an exponential rather than a linear pace.

Ok, feel free to show this letter to your audience on your next show and discuss it in a fair and friendly way. If you do, please let me know, and I would be happy to make time to watch the show.

Again thanks for the work you do, and keep up the critical thinking. That's a huge delight to see.

Respectfully, Gregory L. Garrett

Quote From Newton's Correspondence with Theologian Richard Bentley

This quote is from Newton's correspondence with theologian Richard Bentley, who in 1692 delivered a series of sermons on the subject of "A Confutation of Atheism from the Origin and Frame of the World" at St. Martin-in-the-Field. This course of lectures was the first on the evidence of Christianity established by a bequest from Robert Boyle.

In preparing his sermons, Bentley had received Newton's recommendations, in July 1691, for background information from parts of the Principia which had been published about five years earlier. After Bentley gave his oral presentations, but before publishing them, he consulted with Isaac Newton in several letters, clarifying a number of points regarding Gravity and Cosmogony, so that he could be sure the printed version of his lectures gave a correct interpretation of Newton's ideas.

The summation of all those correspondences comes to this quote:

"It is inconceivable that inanimate brute matter should, without the mediation of something else which is not material, operate upon and affect other matter without mutual contact, as it must be, if gravitation in the sense of Epicurus, be essential and inherent in it. And this is one reason why I desired you would not ascribe innate Gravity to me. That Gravity should be innate, inherent, and essential to matter, so that one body may act upon another at a distance through a vacuum, without the mediation of anything else, by and through which their action and force may be conveyed from one to another, is to me so great an absurdity that I believe no man who has in philosophical matters any competent faculty of thinking can ever fall into it. Gravity must be caused by an agent acting constantly according to certain laws; but whether this agent be material or immaterial, I have left open to the consideration of my readers."

--Sir Isaac Newton: Letters to Bentley, February 1693

(https://todayinsci.com/N/Newton_Isaac/NewtonIsaac-GravityQuote800px.htm#google_vignette)

P.S. I will most likely publish this letter in one of my future books, so feel free to counter anything and I will add that to the publication so you can represent yourself in a fair and honest way. --G.L.G.

Michael Toon's First Response to My Letter

Gregory,

Thanks for the feedback. I will put it on the web page.

You seem to have avoided one glaring issue: Your claim in November, 2019 that you thought the Earth was spherical.

Your own Facebook page contradicts this, before November 2019.

https://mctoon.net/gregory-garrett-quotes/

Since your Facebook page makes it exceeding clear that you were a flat Earther prior to my question, it seems you were lying to me.

Could you clarify your position?

My First Response to Michael Toon's Response to My Letter to Michael Toon

Greg: I have been writing about Enclosed Cosmology for many years.

I am not sure what the confusion is???

From your link: "But, this directly contradicts several posts on his personal Facebook page prior clearly claiming the Earth was flat. Gotta Lie to Flerf."

I would appreciate if you lay off this witch-hunt style approach to science. I am not sure what you are trying to confirm or getting out of it? Calling people "Flerfs" is absolutely elementary school level absurdity. It's simplistic KKK and witch-hunt style labeling, as you know.

"Gotta Lie to Flerf"??? ...the derogatory nature of your approach is infantile, and it is getting really annoying, Michael.

My position for many years was I do not know if that the Earth is completely level, as I have stated on innumerable radio shows as a guest. Like so many people who study this topic, I have held the view for years that we just do not know entirely. I tend towards Enclosed Cosmology, which takes many forms, of course. There are several models.

In rejecting the Heliocentric Model, that does not necessarily mean one thinks that it The Earth is completely flat. I have my theories about this. And I reject Heliocentrism.

Thy fact that you are going back 2 years to try and catch someone in a lie instead of dealing with the content of my current letter to you, is quite revealing. I suggest you take down my personal massages from 2019 or, going forward, we are going to have a real problem continuing to talk. If teaching is your mission, then consider that. If just trying to corner people is your mission, then we have little to talk about, Michael.

I told you there are over 46 Cosmological Models on Wikipedia, some more flat than others, going back to 1700 B.C.

Try responding to the content of my letter I sent rather than continuing to try to play "catch the thief". It is getting very trite, and comes

off as pretentiously sophomoric in a lot of people's eyes, as you already may be assessing.

Sincerely, Greg

Michael Toon's Second Response to My Letter

Michael Toon: Still dancing around your position.

It's clear that in October 2019 that you thought the Earth were flat and you thought the AE map was the correct map.

Then you lied to me in November 2019

My Second Response to Michael Toon's Response to My Letter to Michael Toon

Greg: Looks like you need to play little games for the rest of your life.

You can respond to my current letter or not, which is it??

Playing "catch the thief" is not a new approach. You already know I currently reject the Heliocentric Model, but you need to desperately find motives and reasons for something I said 2 years ago. You just cannot move on?

You already know I currently reject The Heliocentric Model, capish?

It is becoming a sad fact that you are not the teacher I had hoped you were. If you want to play "catch the thief" for the rest of your life, be my guest. But if you want to teach science, then do so.

Unless, you have something new to talk about, adieu. Greg

Michael Toon's Third Response to My Letter

Michael Toon: Dance away. You got caught lying.

My Third Response to Michael Toon's Response to My Letter to Michael Toon

Greg: Yes, to get you off my back, kiddo. Not everyone really cares about your crusade to play KKK.

Now, re-read my current letter, kiddo. You are wasting your time spinning your wheels playing "catch the thief" about something two years ago.

I already told you that I reject The Heliocentric Model. In fact, this is the 8th time.

Are you ok? I mean psychologically. Are you able to let go and just respond to my current letter, or are you going to play cat and mouse all day with yourself?

Best of luck, kiddo. Greg

Exchanges from Michael Toon After I Requested He Post My Letter to Him

Me: "Michael, I think that I may have missed your email to me concerning your posting the letter that I had sent you. I think you were going to post it with the other "Gregory Garrett quotes" that you posted from me on your website, correct? I have attached it here for you, again, so you can post it and feel free to send me the link when you do.

Cheers! Greg"

Toon: "I was unaware that you are my supervisor. Hold on, I'll see if I got a notification from HR Nope. I still report to the same person as before. Not you."

Me: "Aaaaahhh, I see. I was under the impression that your whole professional position was that you were a fair and honest person, but I understand that was a misperception on my part.

It is ok for you to repeatedly post writings from me without my permission, but not ok for you to post any response I may have to my own writings that you used without my permission.

Duly noted.

Tis a pity, too, because I was watching your past debates and enjoying the discourse.

Cheers! Greg"

My Facebook Post About Toon's Childish Behavior

Look at this guy, Michael Toon. He just cannot do anything better with his life than try to play "catch the thief" with me. He dedicates endless hours to attack anyone he suspects might be a "Flerf", as he puts it. His simplistic thinking reminds me of The KKK and Witch-Hunts.

What a sad and desperate man. Look at everything he found online to post about me. I don't even know this guy and look at all this. Haha Think of all the effort he had to go through to assemble all this, and just so he can point a finger and say "Aha! Got you!!".

He must feel very empty and lost inside to still need to resort to such childish playground behavior at his age.

Even after I told him I reject The Heliocentric Theory, he still needs to confirm I reject The Heliocentric Theory...after I told him I do.

All of this just because I told him 2 years ago that The Earth is a sphere to get him off my back. Can you believe it??

He may literally be suffering from brain damage or Dementia, I fear.

So sad.

Helpful Quotes to Assist Michael Looney Toon

"That bodies in some instances are seen to approach each other is a fact; but that their mutual approach is due to an 'attraction,' or pulling process, on the part of these bodies, is, after all, a mere theory. Hypotheses may be sometimes admissible, but when they are invented to support other hypotheses, they are not only to be doubted but discredited and discarded. The hypothesis of a universal force called Gravitation is based upon and was indeed invented with a view to support another hypothesis, namely, that the Earth and sea together make up a vast globe, whirling away through space, and therefore needing some force or forces to guide it in its mad career, and so control it as to make it conform to what is called its annual orbit round the sun! The theory first of all makes the Earth to be a globe; then not a perfect globe, but an oblate spheroid, flattened at the 'poles'; then more oblate, until it was in danger of becoming so flattened that it would be like a cheese; and, passing over minor variations of form, we are finally told that the Earth is pear-shaped, and that the 'elipsoid has been replaced by an apoid!' What

shape it may assume next we cannot tell; it will depend upon the whim or fancy of some astute and speculating 'scientist.'"

-Lady Blount and Albert Smith, "Zetetic Astronomy"

"The 'law of gravitation' is said by the advocates of the Newtonian system of astronomy, to be the greatest discovery of science, and the foundation of the whole of modern astronomy. If, therefore, it can be shown that gravitation is a pure assumption, and an imagination of the mind only, that it has no existence outside of the brains of its expounders and advocates, the whole of the hypotheses of this modern so-called science fall to the ground as flat as the surface of the ocean, and this 'most exact of all sciences,' this wonderful 'feat of the intellect' becomes at once the most ridiculous superstition and the most gigantic imposture to which ignorance and credulity could ever be exposed."

--Thomas Winship, "Zetetic Cosmogeny"

"Any object which is heavier than the air, and which is unsupported, has a natural tendency to fall by its own weight. Newton's famous apple at Woolsthorpe, or any other apple when ripe, loses hold of its stalk, and, being heavier than the air, drops as a matter of necessity, to the ground, totally irrespective of any attraction of the Earth. For, if such attraction existed, why does not the Earth attract the rising smoke which is not nearly so heavy as the apple? The answer is simple - because the smoke is lighter than the air, and, therefore, does not fall but ascends. Gravitation is only a subterfuge, employed by Newton in his attempt to confirm that the Earth revolves round the Sun, and the quicker it is relegated to the tomb of all the Capulets, the better will it be for all classes of society."

--David Wardlaw Scott, "Terra Firma"

"That bodies in some instances are seen to approach each other is a fact; but that their mutual approach is due to an 'attraction,' or pulling process, on the part of these bodies, is, after all, a mere theory. Hypotheses may be sometimes admissible, but when they are invented to support other hypotheses, they are not only to be doubted but discredited and discarded. The hypothesis of a universal force called Gravitation is based upon and was indeed invented with a view to support another hypothesis, namely, that the Earth and sea together make up a vast globe, whirling away through space, and therefore needing some force or forces to guide it in its mad career, and so control it as to make it conform to what is called its annual orbit round the sun! The theory first of all makes the Earth to be a globe; then not a perfect globe, but an oblate spheroid, flattened at the 'poles'; then more oblate, until it was in danger of becoming so flattened that it would be like a cheese; and, passing over minor variations of form, we are finally told that the Earth is pear-shaped, and that the 'elipsoid has been replaced by an apoid!' What shape it may assume next we cannot tell; it will depend upon the whim or fancy of some astute and speculating 'scientist.'"

-Lady Blount and Albert Smith, "Zetetic Astronomy"

How is it that "Gravity" is so strong that it can hold all the oceans, buildings and people stuck to the under-side of the ball-Earth, but so weak that it allows birds, bugs, smoke, and balloons to casually evade its grips completely!? How is it that "Gravity" holds our bodies clung to the under-side of the ball-Earth, but yet we can easily raise our legs and arms, walk or jump and feel no such constant downward pulling force? How is it that "Gravity" can cause planets to revolve elliptical orbits around a single center of attraction? Ellipses by nature require two foci, and the force of gravitation would have to regularly increase and decrease to keep planets in constant orbit and prevent pulling them into direct collision courses!

"That the sun's path is an exact circle for only about four periods in a year, and then of only a few hours - at the equinoxes and solstices - completely disconfirms the 'might have been' of circular gravitation, and by consequence, of all gravitation … If the sun were of sufficient power to retain the Earth in its orbit when nearest the sun, when the Earth arrived at that part of its elliptical path farthest from the sun, the attractive force (unless very greatly increased) would be utterly incapable of preventing the Earth rushing away into space 'in a right line forever,' as astronomers say. On the other hand, it is equally clear that if the sun's attraction were just sufficient to keep the Earth in its proper path when farthest from the sun, and thus to prevent it rushing off into space; the same power of attraction when the Earth was nearest the sun would be so much greater, that (unless the attraction were very greatly diminished) nothing would prevent the Earth rushing towards and being absorbed by the sun, there being no counterbalancing focus to prevent such a catastrophe! As astronomy makes no reference to the increase and diminution of the attractive force of the sun, called gravitation, for the above necessary purposes, we are again forced to the conclusion that the great 'discovery' of which astronomers are so proud is absolutely non-existent."

-Thomas Winship, "Zetetic Cosmogeny" (44-45)

"We are asked by the Newtonian to believe that the action of gravitation, which we can easily overcome by the slightest exercise of volition in raising a hand or a foot, is so overwhelmingly violent when we lose our balance and fall a distance of a few feet, that this force, which is imperceptible under usual conditions, may, under extraordinary circumstances, cause the fracture of every limb we possess? Common-sense must reject this interpretation. Gravitation does not furnish a satisfactory explanation of the phenomena here described, whereas the definition of weight already given does, for a body seeking in the readiest manner its level of stability would

produce precisely the result experienced. If the influence which kept us securely attached to this Earth were identical with that which is powerful enough to disturb a distant planet in its orbit, we should be more immediately conscious of its masterful presence and potency; whereas this influence is so impotent in the very spot where it is supposed to be most dominant that we find an insurmountable difficulty in accepting the idea of its existence."

-N. Crossland, "New Principia"

"In the past several decades, NASA has shown video of astronauts, supposedly in low-Earth orbit, experiencing complete weightlessness, or "zero Gravity," how is this weightless effect achieved if Gravity doesn't exist? As it turns out, for the past several decades, NASA together with Boeing have been perfecting so-called "Zero G planes" and "Zero G maneuvers," which are able to produce weightlessness at any altitude. Aboard modified Boeing 727's specially trained pilots perform aerobatic maneuvers known as parabolas. Planes climb with a pitch angle of 45 degrees using engine thrust and elevator controls, then when maximum height is reached the craft is pointed downward at high speed. The period of weightlessness begins while ascending and lasts all the way up and over the parabola until reaching a downward pitch angle of 30 degrees, at which point the maneuver is repeated. Therefore, all NASA's footage of astronauts aboard "space shuttles," or "the International Space Station" can be easily hoaxed and simulated in Earth-atmosphere aboard a Zero G plane. In fact, watching footage of Zero G plane flights alongside footage of NASA astronauts supposedly floating around their "space shuttles" and "space stations," no observable difference can be seen between the two.

Astronomers claim to have measured all the planets distances, shapes, orbits, weights, relative positions, and times of revolution all based on the "law of gravitation" and without Gravity, their entire cosmology folds under

its own weight. Without Gravity, people cannot stand upside-down on a ball-Earth! Without Gravity, the Earth and planets cannot be revolving around the Sun! Without Newtonian gravitation, Einsteinian relativity, Copernican heliocentricity, and the entire Big Bang ball-Earth mythos cannot exist and falls to pieces. Gravity, both metaphorically and quite literally, just does not hold any water; not as a sound theory of cosmology, and not as a law supposedly responsible for holding in the world's oceans!

"Man's experience tells him that he is not constructed like the flies that can live and move upon the ceiling of a room with as much safety as on the floor: - and since the modern theory of a planetary Earth necessitates a crowd of theories to keep company with it, and one of them is that men are really bound to the Earth by a force which fastens them to it 'like needles round a spherical loadstone,' a theory perfectly outrageous and opposed to all human experience, it follows that, unless we can trample upon common sense and ignore the teachings of experience, we have an evident confirmation that the Earth is not a globe

If we could - after our minds had once been opened to the light of Truth - conceive of a globular body on the surface of which human beings could exist, the power - no matter by what name it be called - that would hold them on would, then, necessarily, have to be so constraining and cogent that they could not live; the waters of the oceans would have to be as a solid mass, for motion would be impossible. But we not only exist but live and move; and the water of the ocean skips and dances like a thing of life and beauty! This is a confirmation that the Earth is not a globe."

-William Carpenter, "100 Confirmations the Earth is Not a Globe" (21-88)

Chapter 6

Gravity Really Gets Me Down

Relative Density (Specific Gravity) Does Not Require Gravity

Relative density is the ratio of the density (mass of a unit volume) of a substance to the density of a given reference material. Specific Gravity usually means relative density with respect to water. The term "relative density" is often preferred in scientific usage. It is defined as a ratio of density of particular substance with that of water.

If a substance's relative density is less than one, then it is less dense than the reference; if greater than 1 then it is denser than the reference. If the

relative density is exactly 1 then the densities are equal; that is, equal volumes of the two substances have the same mass. If the reference material is water, then a substance with a relative density (or specific Gravity) less than 1 will float in water. For example, an ice cube, with a relative density of about 0.91, will float. A substance with a relative density greater than 1 will sink.

But, Gravity has nothing to do with this situation. It is literally the relative density of objects, and their relative index of buoyancy in a particular medium that dictates all this vertical motion.

"G" is for God: Gravity

No experiment. in all human history, has ever shown there to be a magical force that causes bodies to orbit around another body THROUGH A VACUUM. Not one empirically verifiable observation, either in a lab or in nature, even though the medium of air, has ever shown Gravity to be a real force with such an attribute. The real question is "Why do people still believe that there is this mythical fantasy force, Gravity, acting upon the Earth from millions of miles away through the strongest vacuum imaginable (Outer Space) when zero empirical evidence exists to support its existence?" It takes so much FAITH to believe in Gravity that the Faith Christian's have in the belief in Salvation through Christ pales by comparison.

Additionally, the claim that, "If the celestial bodies are big enough, with enough mass, (i.e. the alleged completely unsupported and unverified mass of the Sun) somehow magically, Gravity becomes an emergent property of celestial bodies in the make believe , unsupported, unverified vacuum of mythical Outer Space, as a function of all that....errrr, well, uhmmmm "big mass"??...is tantamount to saying, "We believe in things that have zero empirical support just because we do." Again, no human has ever demonstrated this orbital relationship between two bodies in a vacuum to exist anywhere, so you have to take it all on FAITH, every bit of it. This makes the belief in Gravity nothing more than a religion.

It all amounts to one having to accept one conjecture after another, heaped upon wild nonsensical claims, sprinkled with unsupported assertions, topped off with one absurd hypothesis after another to consider anything Astrophysics says without absolutely falling down on the ground in laughter.

Tesla's Dynamic Theory of Gravity and Acceleration

Nikola Tesla did much to advance our understanding of why we are pulled down to The Earth, based upon the Electro Magnetic architecture of The Earth and its interwoven electro densities.

"Since all solid matter is continually hurling through space, always in motion, it is always subjected to the "etheric wind" and ZPR (Zero Point Radiation) interactions. These effects are not perceived except during changes in the orientation of mass or its velocity. All mass and space have dielectric properties. Differences in dielectric properties cause changes in the electromagnetic displacement within mass and the etheric wind. Earth's electric field creates dielectric displacement effects within ether and mass within Earth's electric field.

This being the case, Gravity is actually the difference between the dielectric displacement within a mass and the dielectric displacement outside the mass in the etheric wind creates a **DOWN-FORCE** in the direction of the negative polarity, as the etheric wind 'blows' through a mass."

-- https://aplanetruth.info/2016/04/13/the-Earth-is-flat-now-what

Globe Gravity Indoctrination

No, no, no... It's always been pear-shaped. It's just so subtle you CANNOT see it. Like curvature. Or satellites! Or Gravity….

"What are the stars? said O'Brien indifferently. They are bits of fire a few kilometers away. We could reach them if we wanted to. Or we could blot them out. The Earth is the center of the universe. The sun and the stars go around it. For

certain purposes, of course, that is not true. When we navigate the ocean, or when we predict an eclipse, we often find it convenient to assume that the Earth goes around the sun and that the stars are millions upon millions of kilometers away. But what of it? Do you suppose it is beyond us to produce a dual system of astronomy? The stars can be near or distant, according as we need them. Do you suppose our mathematicians are unequal to that? Have you forgotten doublethink?"---1984, George Orwell

Nasa worships Apollyon. Heliocentrists worship The Sun... Modern Science is nothing but a religion, you have to believe in it, for it to be true, even without any actual evidence to back up its claims. There is no confirmation that we live on a spinning ball that's hurtling through space, there is no confirmation of Gravity, there is no confirmation of evolution, there is no confirmation of Dinosaurs, there is no confirmation of the Big Bang either. Science is nothing but a Dogma...it is a religion. The definition of religion is as follows (A particular system of faith or worship). That is all that science is today. It is a faith-based system with no actual evidence to confirmation so. People worship NASA and the Heliocentric model...that in itself is a religion. We do not live on a spinning ball that's hurtling through space, but rather a stationary plane that's fixed under a Firmament, just as it appears.

Jesuit Agents tried to mock the Flat Earth Fact by injecting absurd conclusions into children's texts books that suggested you would fall off the edge if the Earth was Flat... in order repel children from investigating into the actual shape of the Earth. Then, by the time these children were in high school and thoroughly brainwashed by the educational system, Hollywood Sci-fi, and the NASA CGI movie making company, they would never look back, but rather, they would FIGHT AND DEFEND Their Jesuit Masters and their Occult Fantasy Globe Model. Even as I say this, most who read it will have a deeply instilled gut reaction to DEFEND The Globe Model. It was sufficient drilled and socially engineered into you by The Royal Society of Great Britain and The Tavistock Institute, using Jesuit Vatican Occultism and

the American Educational Systematized Psychodynamics. Now, most believe they are actually live on a spinning ball in space...as if Star Trek were actually a reality.

You did not learn science in school. You learned Babylonian Hermetic and Kabbalistic fantasy REPACKAGED as ACTUAL SCIENCE. To the extent that one is afraid or too Self-Censored enough to investigate into the Occult Roots of Modern Science, is a measure for one's ignorance.

Newton Made Up the Theory of Gravity…

Newton made up the theory of Gravity, and later they realized the calculations all lead to a giant singularity where all of the universe gets squished into oblivion. To counter that, they made up Dark Energy, which is basically anti-gravity, but then calculations now showed everything will move away from each other until Dark Energy rips the very fabric of outer-space, so to balance both, they made up Dark Matter to hold Gravitons and dark energies together.

It is one imaginary justification, after another, after another to fit in with other made-up bullshit.

I love it because it gives the flavor of how Theoretical Physics, and Astrophysics and Astronomy, in particular, are often just so much unconfirmed speculative theory, heaped upon so much unconfirmed speculative theory, heaped upon so much unconfirmed speculative theory, heaped upon so much unconfirmed speculative theory, heaped upon so much unconfirmed speculative theory, heaped upon…

Quotes Debunking Gravity

Gravity was only really developed by Freemasons to push their Heliocentric Globe Theory...you know, orbits and that kind of crap.

Please ask yourself how great a "gravitational" force would be required to hold 535 quintillion gallons of water to a spinning ball? Take a 1 square mile of ocean, 500 feet deep, how much force is required to keep that square mile on a ball, yet butterflies, birds, insects all can fly about with relative ease. The force needed to keep all that water stuck to a ball would be so great you wouldn't be able to move a limb and your lungs would collapse in seconds.

But if you consider the relative collective mass of The Oceans, and that water is heavier than air, then suddenly everything makes sense. No invisible force if pulling the oceans down. In the simplest sense, they are simply held down by the fundamental dynamism inherent within the basic relationship between molecular density to the surrounding atmosphere.

We call this relationship: Buoyancy.

Think about it.

Or if you fill a balloon with helium, a substance lighter than the nitrogen, oxygen and other elements which compose the air around it, the balloon will immediately fly upwards. If you fill a balloon with hydrogen, a substance even lighter than helium, the balloon will fly upwards even faster. If you blow a dandelion seed out of your hands, a substance just barely heavier than the air, it will float away and slowly but eventually fall to the ground. And if you drop an anvil from your hands, something much heavier than the air, it will quickly and directly fall straight to the ground. Now, this has absolutely nothing to do with "Gravity." The fact that light things rise up and heavy things fall down is simply a natural property of weight. That is very different from "Gravity." Gravity is a hypothetical magnetic-like force possessed by

large masses which Isaac Newton needed to help explain the heliocentric theory of the universe.

"Most people in England have either read, or heard, that Sir Isaac Newton's theory of gravitation was originated by his seeing an apple fall to the Earth from a tree in his garden. Persons gifted with ordinary common-sense would say that the apple fell down to the Earth because, bulk for bulk, it was heavier than the surrounding air; but if, instead of the apple, a fluffy feather had been detached from the tree, a breeze would probably have sent the feather floating away, and the feather would not reach the Earth until the surrounding air became so still that, by virtue of its own density, the feather would fall to the ground."

--Lady Blount, "Clarion's Science Versus God's Truth"

Wilbur Voliva, a famous flat-Earther in the early 20th century, gave lectures all over America against Newtonian astronomy. He would begin by walking on stage with a book, a balloon, a feather and a brick, and ask the audience: "How is it that a law of gravitation can pull up a toy balloon and cannot pull up a brick? I throw up this book. Why doesn't it go on up? That book went up as far as the force behind it forced it and it fell because it was heavier than the air and that is the only reason. I cut the string of a toy balloon. It rises, gets to a certain height and then it begins to settle. I take this brick and a feather. I blow the feather. Yonder it goes. Finally, it begins to settle and comes down. This brick goes up as far as the force forces it and then it comes down because it is heavier than the air. That is all."

"Any object which is heavier than the air, and which is unsupported, has a natural tendency to fall by its own weight. Newton's famous apple at Woolsthorpe, or any other apple when ripe, loses hold of its stalk, and, being heavier than the air, drops as a matter of necessity, to the ground, totally irrespective of any attraction of the Earth. For, if such attraction existed, why does not the Earth attract the rising smoke which is not nearly so heavy as

the apple? The answer is simple - because the smoke is lighter than the air, and, therefore, does not fall but ascends. Gravitation is only a subterfuge, employed by Newton in his attempt to confirm that the Earth revolves round the Sun, and the quicker it is relegated to the tomb of all the Capulets, the better will it be for all classes of society."

-David Wardlaw Scott, "Terra Firma"

"The 'law of gravitation' is said by the advocates of the Newtonian system of astronomy, to be the greatest discovery of science, and the foundation of the whole of modern astronomy. If, therefore, it can be shown that gravitation is a pure assumption, and an imagination of the mind only, that it has no existence outside of the brains of its expounders and advocates, the whole of the hypotheses of this modern so-called science fall to the ground as flat as the surface of the ocean, and this 'most exact of all sciences,' this wonderful 'feat of the intellect' becomes at once the most ridiculous superstition and the most gigantic imposture to which ignorance and credulity could ever be exposed."

-Thomas Winship, "Zetetic Cosmogeny"

Einstein's theory of relativity and the entire heliocentric model of the universe hinges upon Newton's "law of gravitation." Heliocentrists claim that the Sun is the most massive object in the heavens, more massive even than the Earth, and therefore the Earth and other planets by "law" are caught up in the Sun's "Gravity" and forced to orbit perpetual circles/ellipses around it. They claim that Gravity also somehow allows people, buildings, the oceans, and all of nature to exist on the under-side of their "ball-Earth" without falling off.

Now, even if Gravity did exist, why would it cause both planets to orbit the Sun and people to stick to the Earth? Gravity should either cause people to float in suspended circular orbits around the Earth, or it should cause the

Earth to be pulled and crash into the Sun! What sort of magic is "Gravity" that it can glue people's feet to the ball-Earth, while causing Earth itself to revolve ellipses round the Sun? The two effects are very different, yet the same cause is attributed to both.

"Take the case of a shot propelled from a cannon. By the force of the explosion and the influence of the reputed action of gravitation, the shot forms a parabolic curve, and finally falls to the Earth. Here we may ask, why - if the forces are the same, viz., direct impulse and gravitation - does not the shot form an orbit like that of a planet, and revolve round the Earth? The Newtonian may reply, because the impulse which propelled the shot is temporary; and the impulse which propelled the planet is permanent. Precisely so; but why is the impulse permanent in the case of the planet revolving round the sun? What is the cause of this permanence?" -N. Crossland, "New Principia"

"If the sun is pulling with such power at the Earth and all her sister planets, why do they not fall down upon him?" -A. Giberne, "Sun, Moon, and Stars"

Furthermore, this magnetic-like attraction of massive objects Gravity is purported to have can be found nowhere in the natural world. There is no example in nature of a massive sphere or any other shaped object which by virtue of its mass alone causes smaller objects to stick to or orbit around it! There is nothing on Earth massive enough that it can be shown to cause even a dust-bunny to stick to or orbit around it! Try spinning a wet tennis ball or any other spherical object with smaller things placed on its surface and you will find that everything falls or flies off, and nothing sticks to or orbits it. To claim the existence of a physical "law" without a single practical evidential example is hearsay, not science.

"That bodies in some instances are seen to approach each other is a fact; but that their mutual approach is due to an 'attraction,' or pulling process, on the part of these bodies, is, after all, a mere theory. Hypotheses may be

sometimes admissible, but when they are invented to support other hypotheses, they are not only to be doubted but discredited and discarded. The hypothesis of a universal force called Gravitation is based upon and was indeed invented with a view to support another hypothesis, namely, that the Earth and sea together make up a vast globe, whirling away through space, and therefore needing some force or forces to guide it in its mad career, and so control it as to make it conform to what is called its annual orbit round the sun! The theory first of all makes the Earth to be a globe; then not a perfect globe, but an oblate spheroid, flattened at the 'poles'; then more oblate, until it was in danger of becoming so flattened that it would be like a cheese; and, passing over minor variations of form, we are finally told that the Earth is pear-shaped, and that the 'elipsoid has been replaced by an apoid!' What shape it may assume next we cannot tell; it will depend upon the whim or fancy of some astute and speculating 'scientist.'"

-Lady Blount and Albert Smith, "Zetetic Astronomy"

How is it that "Gravity" is so strong that it can hold all the oceans, buildings and people stuck to the under-side of the ball-Earth, but so weak that it allows birds, bugs, smoke, and balloons to casually evade its grips completely!? How is it that "Gravity" holds our bodies clung to the under-side of the ball-Earth, but yet we can easily raise our legs and arms, walk or jump and feel no such constant downward pulling force? How is it that "Gravity" can cause planets to revolve elliptical orbits around a single center of attraction? Ellipses by nature require two foci, and the force of gravitation would have to regularly increase and decrease to keep planets in constant orbit and prevent pulling them into direct collision courses!

"That the sun's path is an exact circle for only about four periods in a year, and then of only a few hours - at the equinoxes and solstices - completely disconfirms the 'might have been' of circular gravitation, and by consequence, of all gravitation … If the sun were of sufficient power to retain the Earth in its orbit when nearest the sun, when the Earth arrived at

that part of its elliptical path farthest from the sun, the attractive force (unless very greatly increased) would be utterly incapable of preventing the Earth rushing away into space 'in a right line forever,' as astronomers say. On the other hand, it is equally clear that if the sun's attraction were just sufficient to keep the Earth in its proper path when farthest from the sun, and thus to prevent it rushing off into space; the same power of attraction when the Earth was nearest the sun would be so much greater, that (unless the attraction were very greatly diminished) nothing would prevent the Earth rushing towards and being absorbed by the sun, there being no counterbalancing focus to prevent such a catastrophe! As astronomy makes no reference to the increase and diminution of the attractive force of the sun, called gravitation, for the above necessary purposes, we are again forced to the conclusion that the great 'discovery' of which astronomers are so proud is absolutely non-existent."

-Thomas Winship, "Zetetic Cosmogeny" (44-45)

"We are asked by the Newtonian to believe that the action of gravitation, which we can easily overcome by the slightest exercise of volition in raising a hand or a foot, is so overwhelmingly violent when we lose our balance and fall a distance of a few feet, that this force, which is imperceptible under usual conditions, may, under extraordinary circumstances, cause the fracture of every limb we possess? Common-sense must reject this interpretation. Gravitation does not furnish a satisfactory explanation of the phenomena here described, whereas the definition of weight already given does, for a body seeking in the readiest manner its level of stability would produce precisely the result experienced. If the influence which kept us securely attached to this Earth were identical with that which is powerful enough to disturb a distant planet in its orbit, we should be more immediately conscious of its masterful presence and potency; whereas this influence is so impotent in the very spot where it is supposed to be most dominant that we find an insurmountable difficulty in accepting the idea of its existence."

-N. Crossland, "New Principia"

Heliocentrists claim the ball-Earth is perpetually spinning on its axis at a mind-numbing 1,038 miles per hour, or 19 miles per second, and somehow people, animals, buildings, oceans, and other surface phenomena can stick to the under-side of the spinning ball without falling or flying off. Take a ride on the "Gravitron" at your local amusement park, however, and notice how the faster it spins, the more you are pushed away from the center of spin, not towards it. Even if the centripetal (inward pulling) force of Gravity did exist, which it does not, the centrifugal (outward pushing) force of the ball-Earth's supposed 19 mile per second spin would also exist and have to be overcome, yet neither of these opposing forces have ever been shown to have any existence outside the imaginations of heliocentric "scientists."

"Gravitation is the term now used to 'explain' what common-sense people look upon as inexplicable. Globularists say that all orbs in space are globes gravitating towards each other in proportion to their magnitude and power of attraction - there being a 'centripetal' force (tending towards the center) and a 'centrifugal' force (tending from the center); but how inert matter can set up any automatic force, and cause one body to gravitate towards another body, has never yet been made palpable to the senses. It belongs to the regions of Metaphysics ('existing only in thought')."

-Lady Blunt, "Clarion's Science Versus God's Truth" (40-41)

"We are not like flies which, by the peculiar conformation of their feet, can crawl on a ball, but we are human being, who require a plane surface on which to walk; and how could we be fastened to the Earth whirling, according to your theory, around the Sun, at the rate of eighteen miles per second? The famed law of Gravitation will not avail, though we are told that we have fifteen pounds of atmosphere pressing on every square inch of our bodies, but this does not appear to be particularly logical, for there are many athletes who can leap nearly their own height and run a mile race in less than five minutes, which they could not possibly do were they thus handicapped."

-David Wardlaw Scott, "Terra Firma"

"The attraction of gravitation is said to be stronger at the surface of the Earth than at a distance from it. Is it so? If I spring upwards perpendicularly I cannot with all my might ascend more than four feet from the ground; but if I jump in a curve with a low trajectory, keeping my highest elevation about three feet, I might clear at a bound a space above the Earth of about eighteen feet; so that practically I can overcome the so-called force (pull) at the distance of four feet, in the proportion of 18 to 4, being the very reverse of what I ought to be able to do according to the Newtonian hypothesis."

-N. Crossland, "New Principia"

Newton also theorized, and it is now commonly taught that the Earth's ocean tides are caused by gravitational lunar attraction. If the Moon is only 2,160 miles in diameter and the Earth 8,000 miles, however, using their own math and "law," it follows that the Earth is 87 times more massive and therefore the larger object should attract the smaller to it, and not the other way around. If the Earth's greater Gravity is what keeps the Moon in orbit, it is impossible for the Moon's lesser Gravity to supersede the Earth's Gravity at Earth's sea-level, where its gravitational attraction would even further out-trump the Moon's. Not to mention, the velocity and path of the Moon are uniform and should therefore exert a uniform influence on the Earth's tides, when in actuality the Earth's tides vary greatly. Furthermore, if ocean tides are caused by the Moon's gravitation, how is it that lakes, ponds, and other smaller bodies of standing water remain outside the Moon's grasp, while the gigantic oceans are so effected!?

"If the moon lifted up the water, it is evident that near the land, the water would be drawn away and low instead of high tide caused. Again, the velocity and path of the moon are uniform, and it follows that if she exerted any influence on the Earth, that influence could only be a uniform influence. But the tides are not uniform. At Port Natal the rise and fall is about 6 feet, while at Beira, about 600 miles up the coast, the rise and fall is 26 feet. This

effectually settles the matter that the moon has no influence on the tides. Tides are caused by the gentle and gradual rise and fall of the Earth on the bosom of the mighty deep. In inland lakes, there are no tides; which also confirms that the moon cannot attract either the Earth or water to cause tides. But the fact that the basin of the lake is on the Earth which rests on the waters of the deep shows that no tides are possible, as the waters of the lakes together with the Earth rise and fall, and thus the tides at the coast are caused; while there are no tides on waters unconnected with the sea."

-Thomas Winship, "Zetetic Cosmogeny" (130-131)

"It is affirmed that the intensity of attraction increases with proximity, and vice versa. How, then, when the waters are drawn up by the moon from their bed, and away from the Earth's attraction, --which at that greater distance from the center is considerably diminished, while that of the moon is proportionately increased--is it possible that all the waters acted on should be prevented leaving the Earth and flying away to the moon? If the moon has power of attraction sufficient to lift the waters of the Earth at all, even a single inch from their deepest receptacles, where the Earth's attraction is much the greater, there is nothing in the theory of attraction of gravitation to prevent her taking to herself all the waters which come within her influence.

Let the smaller body once overcome the power of the larger, and the power of the smaller becomes greater than when it first operated, because the matter acted on is nearer to it. Proximity is greater, and therefore power is greater … How then can the waters of the ocean immediately underneath the moon flow towards the shores, and so cause a flood tide? Water flows, it is said, through the law of Gravity, or attraction of the Earth's center; is it possible then for the moon, having once overcome the power of the Earth, to let go her hold upon the waters, through the influence of a power which she has conquered, and which, therefore, is less than her own?. The above and other difficulties which exist in connection with the explanation of the tides afforded by the Newtonian system, have led many, including Sir Isaac

Newton himself, to admit that such explanation is the least satisfactory portion of the 'theory of gravitation.' Thus, we have been carried forward by the sheer force of evidence to the conclusion that the tides of the sea do not arise from the attraction of the moon, but simply from the rising and falling of the floating Earth in the waters of the 'great deep.' That calmness which is found to exist at the bottom of the great seas could not be possible if the waters were alternately raised by the moon and pulled down by the Earth."

-Dr. Samuel Rowbotham, "Zetetic Astronomy, Earth Not a Globe!" (159-175)

"Even Sir Isaac Newton himself confessed that the explanation of the Moon's action on the Tides was the least satisfactory part of his theory of Gravitation. This theory asserts that the larger object attracts the smaller, and the mass of the Moon being reckoned as only one-eighth of that of the Earth, it follows that, if, by the presumed force of Gravitation, the Earth revolves round the Sun, much more, for the same reason, should the Moon do so likewise, instead of which that willful orb still continues to go around our world. Tides vary greatly in height, owing chiefly to the different configurations of the adjoining lands. At Chepstow it rises to 60 feet, at Portishead to 50, while at Dublin Bay it is but 1 2, and at Wexford only 5 feet … That the Earth itself has a slight tremulous motion may be seen in the movement of the spirit-level, even when fixed as steadily as possible, and that the sea has a fluctuation may be witnessed by the oscillation of an anchored ship in the calmest day of summer. By what means the tides are so regularly affected is at present only conjectured; possibly it may be by atmospheric pressure on the waters of the Great

Deep, and perhaps even the Moon itself, as suggested by the late Dr. Rowbotham, may influence the atmosphere, increasing or diminishing its barometric pressure, and indirectly the rise and fall of the Earth in the waters."

-David Wardlaw Scott, "Terra Firma" (259-260)

"Bearing this fact in mind, that there exists a continual pressure of the atmosphere upon the Earth and associating it with the fact that the Earth is a vast plane 'stretched out upon the waters,' and it will be seen that it must of necessity slightly fluctuate, or slowly rise and fall in the water. As by the action of the atmosphere the Earth is slowly depressed, the water moves towards the receding shore and produces the flood tide; and when by the reaction of the resisting oceanic medium the Earth gradually ascends the waters recede, and the ebb tide is produced. This is the general cause of tides. Whatever peculiarities are observable they may be traced to the reaction of channels, bays, headlands, and other local causes … That the Earth has a vibratory or tremulous motion, such as must necessarily belong to a floating and fluctuating structure, is abundantly confirmed by the experience of astronomers and surveyors. If a delicate spirit-level be firmly placed upon a rock or upon the most solid foundation which it is possible to construct, the very curious phenomenon will be observed of constant change in the position of the air-bubble. However carefully the 'level' may be adjusted, and the instrument protected from the atmosphere, the 'bubble' will not maintain its position many seconds together. A somewhat similar influence has been noticed in astronomical observatories, where instruments of the best construction and placed in the most confirmed positions cannot always be relied upon without occasional re-adjustment."

-Dr. Samuel Rowbotham, "Earth Not a Globe, 2nd Edition" (108-110)

In the past several decades, NASA has shown video of astronauts, supposedly in low-Earth orbit, experiencing complete weightlessness, or "zero Gravity," how is this weightless effect achieved if Gravity doesn't exist? As it turns out, for the past several decades, NASA together with Boeing have been perfecting so-called "Zero G planes" and "Zero G maneuvers," which are able to produce weightlessness at any altitude. Aboard modified Boeing 727's specially trained pilots perform aerobatic maneuvers known as parabolas. Planes climb with a pitch angle of 45 degrees using engine thrust

and elevator controls, then when maximum height is reached the craft is pointed downward at high speed. The period of weightlessness begins while ascending and lasts all the way up and over the parabola until reaching a downward pitch angle of 30 degrees, at which point the maneuver is repeated. Therefore, all NASA's footage of astronauts aboard "space shuttles," or "the International Space Station" can be easily hoaxed and simulated in Earth-atmosphere aboard a Zero G plane. In fact, watching footage of Zero G plane flights alongside footage of NASA astronauts supposedly floating around their "space shuttles" and "space stations," no observable difference can be seen between the two.

Astronomers claim to have measured all the planets distances, shapes, orbits, weights, relative positions, and times of revolution all based on the "law of gravitation" and without Gravity, their entire cosmology folds under its own weight. Without Gravity, people cannot stand upside-down on a ball-Earth! Without Gravity, the Earth and planets cannot be revolving around the Sun! Without Newtonian gravitation, Einsteinian relativity, Copernican heliocentricity, and the entire Big Bang ball-Earth mythos cannot exist and falls to pieces. Gravity, both metaphorically and quite literally, just does not hold any water; not as a sound theory of cosmology, and not as a law supposedly responsible for holding in the world's oceans!

"Man's experience tells him that he is not constructed like the flies that can live and move upon the ceiling of a room with as much safety as on the floor: - and since the modern theory of a planetary Earth necessitates a crowd of theories to keep company with it, and one of them is that men are really bound to the Earth by a force which fastens them to it 'like needles round a spherical loadstone,' a theory perfectly outrageous and opposed to all human experience, it follows that, unless we can trample upon common sense and ignore the teachings of experience, we have an evident confirmation that the Earth is not a globe … If we could - after our minds had once been opened to the light of Truth - conceive of a globular body on the surface of which

human beings could exist, the power - no matter by what name it be called - that would hold them on would, then, necessarily, have to be so constraining and cogent that they could not live; the waters of the oceans would have to be as a solid mass, for motion would be impossible. But we not only exist but live and move; and the water of the ocean skips and dances like a thing of life and beauty! This is a confirmation that the Earth is not a globe."

-William Carpenter, "100 Confirmations the Earth is Not a Globe" (21-88)

"Nearly a hundred years ago Kepler had suggested that some kind of unknown force must hold the Earth and the heavenly bodies in their places, and now Sir Isaac Newton, the greatest mathematician of his age, took up the idea and built the Law of Gravitation. The name is derived from the Latin word 'gravis,' which means 'heavy,' ' having weight,' while the Law of Gravitation is defined as 'That mutual action between masses of matter by virtue of which every such mass tends toward every other with a force varying directly as the product of the masses, and inversely as the square of their distances apart.' Reduced to simplicity, gravitation is said to be 'That which attracts everything toward every other thing.' That does not tell us much; and yet the little it does tell us is not true; for a thoughtful observer knows very well that everything is not attracted towards every other thing . . . The definition implies that it is a force; but it does not say so, for that phrase 'mutual action 'is ambiguous, and not at all convincing."

-Gerrard Hickson, "Kings Dethroned" (14-15)

"The system of gravitation which makes the sun the moving center of the Universe, the awkward principles of which are anything but certain since they apply to invisible circumstances so that they cannot be checked, is here replaced by the old geocentric system, universally accepted until the 17th century in view, of course, of its undisputable obviousness, and in which the Earth, in a state of immobility and surrounded by the planets visibly moving round it including the sun, is at the center of our Universe. These two facts which explain almost everything are firstly, the positive existence above the

Earth of a solid dome constituting the sky; and secondly, the non-material nature of the planets and constellations, which are not physical masses, but merely luminous manifestations without substance. These are the two circumstances which lead today to the fundamental transformation of astronomy."

-Gabrielle Henriet, "Heaven and Earth"

"The theory that motions are produced through material attraction is absurd. Attributing such a power to mere matter, which is passive by nature, is a supreme illusion. It is a lovely and easy theory to satisfy any man's mind, but when the practical test comes, it falls all to pieces and becomes one of the most ridiculous theories to common sense and judgment."

-Professor Bernstein, "Letters to the British Association"

Gravity Does Not Exist

Gravity is meaningless, an utterly useless word in terms of science and should be completely redefined.

So, the density of water is affected by temperature. When water is heated, it expands, increasing in volume. The warmer the water, the more space it takes up, and the lower its density. The cooler the water the denser. Because objects float better on a dense surface, they float better on saltwater than fresh water. The denser the saltwater, the easier it is for objects to float on top of it.

Water is weird though because when you cool it below 4°C, it starts to expand when you cool it further. So, when water turns to ice, the molecules line up in that special way, and the ice actually takes up more room than the liquid.

This goes a long way toward explaining the ocean tides without using the ridiculous Moon and Sun Gravity theory. There is no Gravity. There is only the influence of hot and cold sources of light like the Sun and the Moon"

-- http://ifers.123.st/t158-Gravity-does-not-exist

Gravity is Their GOD

"I'm reading a great book on anti-Gravity…I can't put it down."

But seriously, Gravity is Disney magic to people who do not understand science. They play the Gravity card to explain away anything they cannot explain, otherwise, in the same way many theists play the God card to explain things that have no other explanation.

Whenever something is unknown or mysterious in its movement on Earth or in science fiction space, science invokes unseen, Magic Ball Disney Gravity because…

Gravity is MAGIC!!!

However, religion admits that it is a faith-based, and subsequently, if it wants to invoke an unseen God that is allowed in a faith-based religion. But science is supposed to be empirical evidence driven. Its conclusion must be based solely upon observation, repeatable, measurable, and otherwise, empirical sense data, and yet it is invoking unseen Mystery Glue, Gravity???

And yet, there is no data to confirm the existence of Gravity…only faulty inferences from poor observational skills.

Gravity is The Holy Sacrament of The Scientism Religion.

Density, Buoyancy, and Atmospheric Pressure

Gravity is like a fictional mathematical abstract number and nothing more. Gravity is nothing more than the interplay between ATMOSPHERIC PRESSURE, or medium, BUOYANCY, and the DENSITY of objects.

A feather falls slower in the air than in a vacuum because of the DENSITY of the medium of air, (Atmospheric Pressure), versus a vacuum, in relationship to the DENSITY of the feather. If GRAVITY existed no matter how much HELIUM you put in a balloon, it would go nowhere.

HELIUM DOES NOT OVERCOME GRAVITY…ridiculous. It changes the relationship of the DENSITIES of objects versus MEDIUMS involved...hence floating.

Because there is a UP and a DOWN, does not even remotely suggest there is this magical Disney force called GRAVITY pulling things towards the center of THE EARTH. It is DENSITY and ATMOSPHERIC PRESSURE that determines if things rise or fall. In water, Styrofoam floats because of its DENSITY in relationship to the DENSITY of the water...basic fluid dynamics. And Styrofoam FALLS in the air because of its DENSITY in relationship to the DENSITY of air. The DENSITY of objects and the mediums (Atmospheric Pressures) they travel through determine it all.

1) **If Gravity was a real force,** the Styrofoam would fall equally in water or air, regardless of the medium.
2) **If Gravity was a real force,** The Moon would be stolen by The Sun because apparently The Sun's Gravity is so strong that The Earth cannot escape it, with its massively larger mass than The Moon. How would a smaller mass body resist The Suns Gravity? At her very least, every time The Moon positioned itself in between The Sun and The Earth, there would be massive tug-o-war between The Sun and The Earth to keep possession of The Moon. But there is not according to NASA. In fact, any elliptical orbital trajectory The Moon takes, does

not extend itself towards The Sun. So much for Magic Ball Sun Gravity, too…

What About the Pull You Feel Going Straight Up in A Rocket?

You feel heavier. Is not that a confirmation of Gravity pulling you down? No, it is not. It is a demonstration of something pushing against you…the seat beneath you. You are literally in the way of the seat wanting to rise up with the rocket, and the set pushing up against you makes you feel like you are being pulled down by Magic Ball Disney Gravity.

1) **If Gravity was a real force,** the pull on the surface of The Earth would be greater than the pull down from 30 thousand feet. It is not. You weigh the same in either location.
2) **If Gravity was a real force,** you would not be able to toss a ball into the air or even move your limbs. If Gravity is strong enough to capture the massive Moon at 238,900 miles away, and keep it from flying off into space, it would be unbearably strong on the surface of The Earth.
3) **If Gravity was a real force,** lighter objects would fall faster than heavier objects in a vacuum. Weight being mass times Gravity (W=mg). They do not.

What About Objects Falling in A Vacuum?

Indeed, they fall at the same rate because the pressure and density in the vacuum are equalized. There is no discriminatory density or pressure to the medium (vacuum environment) in which the objects are falling, so they fall at the same rate. For instance, in air, Helium is lighter than the medium it is in, so a Helium balloon floats. But in a vacuum, there is no air, so now the Helium balloon is not lighter than the medium it is in, so it falls. The Helium balloon is less dense than the vacuum medium. Also, the baseball next to it falls at the same rate in the vacuum because there is no density issue impeding its fall, as well.

Some say that pressure and density are only half of the equation of weight. (Mass x Gravity). They say you need Gravity to pull things down in

order for objects of varying pressure and densities to navigate through mediums of varying pressure and densities, either going up or. Oh really? And it has to be magical Gravity, a force so unseen and so weak it is called one of the weakest forces? This does not add up.

What makes more sense is that The Earth is Electro Magnetic in nature. We essentially live in an electromagnetic field. And magnetic fields possess Electro Magnetic Static Energy. Things are naturally pulled down to The Earth because this is the Electromagnetic Static Electric design of The Earth. Even science admits Electromagnetism is far stronger than this mythical magical Gravity.

We basically live on a Ring Magnetic, like the kind you see driving your car speaker. They have a center magnetic pole, drawing things to the center. What does The Earth have? It has a magnetic center called The North Poles, and everything is drawn to it, electromagnetically. The South Pole is not an attractor though it plays a part in the electromagnetic field of The Earth, obviously.

Helium Balloons Do Not Rise in a Vacuum Proving Gravity is a Hoax

If Gravity was a real force, it would not change its behavior if a Helium balloon was placed in a vacuum. Why would it? However, as hundreds of experiments show, when you reduce the barometric pressure surrounding a Helium balloon by sucking the air out of a chamber, the lighter-than-air property of Helium can no longer function to cause the balloon to rise in the absence of air, itself. Helium is heavier than vacuum and so the balloon sinks. But when you reintroduce air into the vacuum chamber, the Helium balloon begins to rise again. This is empirical confirmation that Gravity plays no role in holding objects down, but rather, it is the Atmospheric Pressure, (or Density of the Medium), in relation to the Density of the Object (in this case Helium), that dictates the rise and fall of objects.

Otherwise, one would have to absurdly conclude that Gravity cannot hold a Helium balloon down in the open outside air, but it magically flips on to hold down a Helium balloon as soon as it is enclosed in a vacuum

chamber. It is an absurd conclusion and is scientifically useless and invalid, as such.

Tesla's Extraction of Cosmic Energy

"According to Tesla, the ether is not an "energy source", since it is composed of tiny independent "carriers immersed in an insulating fluid". The ether, therefore, is a "medium" through which energetic transferences and transmutations can be affected, and electric and magnetic "tubes of force" can be created and carried into a body from space, giving it momentum to propel it. "Cosmic radiation" is not the ether, but "starlight"—what Tesla called the "Primary Solar Rays". This extremely high-frequency light—of much tinier wavelength than visible light, U.V., X-rays, and gamma rays (also emitted by our sun and other stars)—is the ZPR. Tesla stated that the Zero Point Radiation gives rise to secondary radiations through impact with the cosmic dust of space, which are commonly called "cosmic rays" today.

In 1935 Tesla objected to the observations of the German radiologist, Dr. Werner Kolhoester, saying his observations were another confirmation of his own theory of cosmic rays originally advanced in l896, but asserted that Kolhoester's 1935 theory was erroneous, because light is a wave motion of definite velocity (C), determined by the elastic force and density of the "medium", while cosmic rays are "...particles with velocities determined by the propelling force...", which therefore could be much slower or faster than that of light. Since the velocities of the two radiations would not (and could not) coincide, Kolhoester's observations which coincided with the light observed, would not be accurate. Here, Tesla distinguished between the "cosmic radiation" he proposed in 1896, which was particles, which were propelled by ultra-high frequency "primary solar radiation", which I equate to the ZPR, which are light rays traveling at C. Because of their extremely high voltages levels and frequencies, they can propel "cosmic dust" articles faster than C, when of sufficiently high voltage levels and frequency."

-- turner, http://overunity.com/14673/tesla-zpr-generator-cosmic-energy/#.WmxaTK6nHZY

Acceleration

Opponents to anything but Magic Gravity as the force which pulls objects down to The Earth often bring up the issue of Acceleration. If there is no Gravitational force pulling objects towards The Earth at 9.8m/s/s, then why do things accelerate as they fall, based on mass? At first this seems to be a daunting win for adherents to Magic Ball Gravity but upon thinking in Tesla's vernacular, acceleration is quite easily explained in electromagnetic terms:

Acceleration, likewise, then becomes the **SHIFTING DIFFERENTIAL POTENTIALS** between the dielectric displacement within a mass and the dielectric displacement outside the mass in the etheric wind creates a down-force in the direction of the negative polarity, as the etheric wind 'blows' through a mass.

In other words, as a body gets nearer The Earth, the Electro Magnetic field that constitutes The Earth kicks in stronger and stronger, in much the same way there is a stronger and stronger attraction from a magnet the closer you get to it.

The Shifting Differential Electro Magnetic Potential, As The Etheric "Wind" Blows Through A Mass, Clocks At Newton's 9.8m/S/S.

There only APPEARS to be this mythical unseen and unmeasurable force called Gravity. But rather, it is simply the very measurable and provable force of electromagnetism.

We manipulate electromagnetism every day, and hence know of its existence. Your car stereo speakers are based upon electromagnetic principles. However, we never manipulate Gravitational fields or use Gravity in any practical engineering applications ever, since it does not exist. We manipulate weight, but weight, as was stated, is the difference between the dielectric displacement within a mass and the dielectric displacement outside the mass in the etheric wind creates a **DOWN-FORCE** in the direction of the negative polarity, as the etheric wind 'blows' through a mass."

In his 1938 lecture, Tesla said he was progressing with the work, and hoped to give the theory to the world "very soon", so it was clearly his intent to "give it to the world", as soon as he had completed his secret developments.

The "two great discoveries" to which Tesla referred, were:

1. **The Dynamic Theory of Gravity - which assumed a field of force which accounts for the motions of bodies in space; assumption of this field of force dispenses with the concept of space curvature (ala Einstein); the ether has an indispensable function in the phenomena (of universal Gravity, inertia, momentum, and movement of heavenly bodies, as well as all atomic and molecular matter).**
2. **Environmental Energy - the Discovery of a new physical Truth: there is no energy in matter other than that received from the environment.**

As for Tesla's theory, we have hints, such as, that The Earth is the "star of human birth". In poetic expressions, he hid scientific meanings in statements such as, that using the "thunderbolt of Jove" (the Indo-European sky god), man "annihilates time and space", an allusion to the use of electro-propulsion ("thunderbolts"), to travel so fast, that time and space are "annihilated". Where the government has stolen his papers, we must search for meaning elsewhere. In an article, "Man's Greatest Achievement", Tesla outlined his Dynamic Theory of Gravity in poetic form (paraphrased):

*** That the Luminiferous Aether fills all space**

*** That the Aether is acted upon by the life-giving creative force**

*** That the ether is thrown into "infinitesimal whirls" ("micro helices") at near the speed of light, becoming ponderable matter**

*** That when the force subsides and motion ceases, matter reverts to the Aether (a form of "atomic decay")**

That man can harness these processes, to:

-Precipitate matter from the Aether

-Create whatever he wants with the matter and energy derived

-Alter the Earth's size

-Control Earth's seasons (weather control)

-Guide Earth's path through the Universe, like a spaceship

-Cause the collisions of planets to produce new suns and stars, heat, and light

-Originate and develop life in infinite forms

Essentially, from Tesla's understanding:

Earth is a Realm.

It is NOT a Planet.

It is not an object; therefore, it has no edge. Earth would be more easily defined as a system environment. Earth is also a machine, it is a Tesla coil. The sun and moon are powered wirelessly by the electromagnetic field (the Aether). This field also suspends the celestial spheres with electro-magnetic levitation. Electromagnetic levitation disconfirms Gravity because the only force you need to counter is the electromagnetic force, not Gravity. The stars are attached to the firmament."—Nikola Tesla

-- William R. Lyne, An excerpt from: Occult Ether Physics, http://netowne.com/technology/important

Remember, you can just as easily say that atmospheric pressure is a component which causes things to rise, contingent upon mass and density. Asserting that things want to naturally fall because of magic Gravity is but another mere assumptive, unconfirmed theory.

Electromagnetism is empirical science...verifiable, practical, measurable, usable, technologically applicable. Gravity is fictional nonsense...mythological, non-observable, non-empiric...Pure assumptive conjecture and unconfirmed hypothesis

Gravity Not So Constant After All

The order of size and mass of the planets in relation to the sun, given in the Heliocentric model makes no sense. How does the size of the planets jump from Mars to roughly Earth's size, too the gas giant Jupiter? How does Gravity hold all these different size planets at different distances with the alleged constant, consistent force of Gravity if Gravity were real? The distance of each respective planet from The Sun versus the Gravitational pull emitted should be scaled accordingly. Tiny Mercury is closest to The Sun and should be pulled into The Sun if The Sun's Gravity is strong enough to hold the much more massive Earth at a greater distance from the Sun than Mercury. It makes no logical sense. Gravity is erratic, inconsistent, nonsense used by Heliocentrists to explain everything celestial which is unexplainable.

The AbracaGravity and Mythematics of Mathemagicians!

From the Introduction page of Robert Otey's ***Gravity is a Myth and Does Not Exist***:

In the course of this book I will confirm that the force called "Gravity" by Newton and later modified by Einstein and others, does not exist and is

purely mythical in its creation. The consequences of this conclusion are immense. It means that a huge list of non-existent entities have been conjured up by academic scientists based on the mathematics of a non-existent force. For example:

1. **Dark Matter**
2. **Dark Energy**
3. **Black Holes**
4. **Singularities**
5. **Event Horizons**
6. **Wimps (Weakly Interacting Massive Particles)**
7. **Mond (Modified Newtonian Dynamics)**
8. **Machos (Massive Astrophysical Compact Halo Object)**
9. **Neutron Stars**
10. **Gravitational Collapse**
11. **Gravitons**
12. **Gravity Waves**
13. **Quantum Gravity**
14. **Inward Pulling Gravity**
15. **Gravitational Lensing**
16. **Gravitational Constant**
17. **Schwarzchild Radius**
18. **Gravitational Radiation**
19. **Frame Dragging**
20. **General Relativity**
21. **Anti-Gravity**
22. **Virtual Gravitons**
23. **Quantum Field Theory**

Why Gravitational Waves Are Nonsense

"The Laser Interferometer Gravitational-Wave Observatory (LIGO) is a large-scale physics experiment and observatory to detect cosmic gravitational waves and to develop gravitational-wave observations as an astronomical tool." --Wikipedia

As most of you have heard, tomorrow is the day of the big announcement from LIGO regarding their gravitational wave detection experiment. As my readers have come to expect, I always have a rebellious point of view in matters concerning physics, artificial intelligence and computer science. Once again, I aim to please. I detest relativistic physics about as much as I detest mainstream AI. Einsteinian physics has retarded progress in our understanding of the universe by at least a century, in my opinion. I have written about this on many occasions in the past (see the links at the end of this article). Below I explain in simple terms why gravitational waves are crap and why any announcement from anybody that such waves have been detected is either fraudulent or another pathetic error.

There are many reasons that gravitational waves are nonsense but what follows is my favorite. It is very simple and it won't take long. As usual, it has to do with infinite regress. In my research, I have found that nearly everything that is wrong with both classical and quantum physics is almost invariably due to infinite regress. So here goes.

Gravity affects everything that exists equally regardless of mass and this includes massless particles. Both Newton and Galileo understood this centuries ago, even though relativists claim that they are the ones who figured it out. Go figure.

The problem is that this undeniable principle means that Gravity also affects gravitational waves. Since these waves affect themselves, they either cancel themselves out or amplify themselves recursively. The same objection

applies to so-called curved space and to hypothetical intermediary particles such as Gravitons. In other words, if it exists, regardless of its mass, Gravity affects it. The infinite self-referential regress is too painful to even contemplate.

Conclusion

Paul Feyerabend was right when he wrote in Against Method, "the most stupid procedures and the most laughable result in their domain are surrounded with an aura of excellence. It is time to cut them down to size and to give them a lower position in society." Einsteinian physics is indeed laughable. To borrow the words of Wolfgang Pauli, it is not even wrong." -- https://eternian.wordpress.com/evidence

Natural Philosophy and Physics

Philosophy is "the rational investigation of the truths and principles of being, knowledge, or conduct" (Webster's Unabridged Dictionary). As such, it covers a wide range of topics, some of which are so esoteric as to be incomprehensible or irrelevant to the average person (e.g., the question of whether or not the observation of things verifies their actual existence and properties, or merely some imaginary construct which leads to their apparent existence and properties). One subset of this range of topics is natural philosophy, which is concerned with the nature of the physical world, and physics, the application of natural philosophy to those parts of the physical world which can be explained by theories which are consistent within themselves, and with each other, and can be tested by experimental means. Note that if a theory cannot be tested by any means, it may be a perfectly acceptable theory philosophically, but it is not a proper theory of physics.

My response:

So, what does this say about Einstein's armchair theories which cannot be tested?

They are false according to this definition. It is this sort of distinction that is sometimes used to try to separate religion, which is based on faith, rather than experimental confirmation, and science, which is presumably based on experimental confirmation, and not faith. Einstein's and hawking's thought experiments are no more valid than religious faith, they are based on faith in his so-called genius which cannot and is not based on experimental confirmation

However, most scientists It should be noted that the term "theory" means many things to different people. In the ordinary world, saying that something is "only a theory" implies that it is mere speculation, worthy of no serious interest or consideration. In physics, a theory is an exact, specific statement about the way that things work, which is in some way testable by the application of physical thought and mathematics, and experiment; and most physical theories are so well grounded in experiment and careful comparison with other physical considerations that they are, within the experimental error, as accurate a statement of how things work as any other statement that we can make.

My response:

Einstein's theories, nuclear theory, quantum and string theories are not in accordance with this definition of theory.

This does not, unfortunately, mean that all theories are true, and this discussion is centered on three theories of motion in general, and Gravity in particular, that have occupied Western thought during the last few millennia. Each of these theories explain the basic experimental observations, but they look at the nature of motion, Gravity, and even the space and time we live in, in very different ways.

What Is Gravity? Gravity is the easily observable phenomenon that things fall and have weight. If you pick up something, you perceive the "gravitational" effect on it as the weight that presses downward against your

effort to lift it. If you let go of it, you perceive the effect as the nearly constant downward acceleration that it experiences, causing it to fall, faster and faster, until it hits the ground, or the air resistance caused by its speed prevents its going any faster. Note that Gravity is always downward, and in fact is used to define "down", and the opposite direction, "up". Why things have weight and fall is not known; it is just a fact of nature, which we describe with mathematical statements, and explain with one physical world-view (theory) or another.

My response:

Russell explains so-called Gravity as stillness which centers electric potential of like bodies smaller electric bodies seek rest in larger bodies of greater electric potential.

At the present time, most people use a theory proposed by Newton, which states (as discussed in more detail below) that Gravity is a force exerted by objects on each other, according to their mass and distance from each other. In almost every circumstance known, Newton's Law of Universal Gravitation perfectly explains the gravitational effects and motions we observe.

My response:

Pari Spolter points out that masses are not needed to explain the law of universal gravitation as is claimed by the astronomy prof.

But there are rare circumstances in which his law is not correct, and according to Einsteinian Relativity Theory, Gravity is not a force at all, but a condition of space-time a rather an odd amalgam of space and time, which varies according to the motion of the observer, which mimics a force. The exact mathematics and physics of Einsteinian Gravity are beyond the comprehension of most people not because they are incapable of understanding the theory, but because they don't have the requisite

background in mathematics and physics, but Newton's description is perfectly adequate for all ordinary, every-day purposes. Only certain extreme situations, such as a complete understanding of black holes, and the structure of the Universe, require the use of Einstein's relativity theories, and even then, the basic concepts can be described reasonably well by the use of various analogies.

My response:

Black Holios do not exist, so no need for Einy's Gravity theory, and the structure of the Universe is completely unknown in modern Psyence.

--file:///E:/Gravity-Theories-of-Newt-and-Einy-Debunked-by-Robert-Otey.pdf

Floating Astronaut Lunacy and The Moon

So, we are shown fake Outer Space videos of floating Astronauts in High Altitude Zero "Gravity" Planes, as well as told by NASA that because the Earth's gravitational field is so weak in Outer Space, that Astronauts float around. And yet, a massive body like The Moon, with its alleged millions of tons of mass, cannot escape the gravitational clutches of the Earth from 294,000 miles away.

In other words, the Earth's gravitational field can keep the Moon from floating away at 294,000 miles, but it, contradictorily, is too weak to even hold a 198-pound Astronaut on the floor of his capsule at 200 miles from the Earth. But then, it can hold that same 198-pound man on the ground at the Earth's surface because evidently it is stronger at that location. So, Gravity is extremely weak at 200 miles up but extremely strong at 294,000 miles away?

Welcome to the upside down, Bizzaro world of modern science. And to cover up the nonsense, they scream "The more mass the more Gravity!", and since the Moon has more mass than the Astronaut, we are supposed to

allow this impossible theory to exist as science. Every bit of it is conjecture based upon whimsical fantasy, laced with ironic myth.

This Is the Way We *Weigh* the Universe

Things that (weigh more), have more (gravitational force) on them. But, according to Newton's Third (Law), Law of Action and Reaction, if more force is exerted on something, then (it exerts more force back) on 'you'. In the case of Gravity, Jupiter has over 300 Earth masses. This means that the (Sun would have to pull on Jupiter over 300 times harder) than on the Earth, if they were in the same place, in order to move it the same amount, which it would do, willy nilly, because Gravity moves all things in the same way, regardless of their mass. But if the (Sun pulls on Jupiter 300+ times harder, Jupiter must pull back on the Sun 300+ times harder, and in fact, Jupiter must pull on EVERYTHING 300+ times harder than the Earth does), given the same distance between 'everything' and the Earth/Jupiter.

Example: Moon going around the Earth (semi-major axis) a = 250,000 miles (orbital period) P = 27 1/3 days Now, let's make each of these '1' unit 1-squared = 1-cubed is Kepler's 3rd Law.

(Semi-major axis) a = approx. 250,000 miles (orbital period) P = approx. 1 1/2 days 18 times less than for our Moon, even though the orbit is the 'same' size. The rotation of Jupiter is much faster than the Earth and this is the reason for the greater velocities of the moons around Jupiter. They were born from Jupiter with a much higher rotational centrifugence.

(1/18)-squared is NOT 1-cubed BUT, put in the mass of Jupiter (approx. 18squared) (18)-squared (times) (1/18)-squared IS equal 1 That's how we know that Jupiter is over 300 Earth masses, and exerts over 300 Earth gravities on things at the 'same' distance.

Do the same thing with the Sun and Earth (semi-major axis) = 400 times Moon's orbit (orbital period) = 13 times Moon's orbit 13-squared NOT

EQUAL 400-cubed 170 NOT EQUAL 64000000 BUT if the Sun is 333,000 Earth masses, THEN 333000 (times) 170 IS EQUAL TO 64000000 So, that's the mass of the Sun. Kepler's so-called 3rd law.

Somehow, (Gravity knows) how hard to pull on things, to make them fall the same way, DESPITE their difference in mass. If something has a small mass, m, weight = mass (times) acceleration of Gravity Small w = small m (times) constant of Gravity

If something has a BIG mass, M, WEIGHT = MASS (times) acceleration of Gravity BIG W = BIG M (times) constant of Gravity

Gravity is the (ONLY) force that works this way. So, you can measure (the mass) of an object, by seeing (how much it weighs, Or by how (hard it pulls) on other objects.

My response:

Pari Spolter has confirmed empirically that the addition of mass or the product of two masses to be exact has nothing at all to do with so-called Universal Gravitation. Newton added these masses purely ad hoc and Kepler's Third Law explained the so-called effects of Gravity (really electric potential)

without the introduction of the masses. The result of Newton's mistake has created a neurotic view of the Cosmos where masses pull on each other with more strength the larger the masses become and somehow know just how much "pull" to dole out to all bodies. This leads to the absurdity that planets and moons speed up and slow down according to how much pull is exerted upon them. There is no pulling force anywhere in our Universe, nor is gravitation a pulling force. Gravity is points and shafts of stillness, which centers all masses. The effects we see are due purely to electric potential."

-- file:///E:/Gravity-Theories-of-Newt-and-Einy-Debunked-by-Robert-Otey.pdf

Gravity is Fictional: Putting it All Together

Terminal Velocity, Drag, Electron Density (Density), Atmospheric Pressure

The Buoyant Force, and Aerodynamic Properties

Terminal Velocity

Terminal velocity is the maximum velocity attainable by an object as it falls through a fluid (air is the most common example). It occurs when the sum of the downward object density "force" and the upward buoyant force establish equilibrium. Since the net force on the object becomes zero, the object has zero acceleration.

Drag

In fluid dynamics, an object is moving at its terminal velocity if its speed is constant due to the restraining force exerted by the fluid through which it is moving. A drag force is the resistance force caused by the motion of a body through a fluid, such as water or air. As the speed of an object increases, so does the drag force acting on it, which also depends on the substance it is passing through (for example air or water). At some speed, the drag or force of resistance caused by the surrounding atmosphere will equal the downward force caused by the electron density of the object. At this point the object ceases to accelerate and continues falling at a constant speed called the terminal velocity (also called settling velocity). An object moving downward faster than the terminal velocity (for example because it was thrown downwards, it fell from a thinner part of the atmosphere, or it changed shape) will slow down until it reaches the terminal velocity.

Electron Density

In quantum mechanics, and in particular, quantum chemistry, the electron density is a measure of the probability of an electron occupying an infinitesimal element of space surrounding any given point. Electron density is a representation of the probability of finding an electron in a specific location around an atom or molecule. In general, the electron is more likely to be found in regions with high electron density. However, due to the uncertainty principle, it's not possible to identify the exact location of an electron at any instant in time. For a system with a single electron, electron density is proportion to the square of its wavefunction. X-ray diffraction crystallography is one technique used to measure electron density. Electron Density determines weight which dictates the downward force of a falling object. Once an object attains enough electron density to overcome the buoyant force of the surrounding atmosphere, it will fall until it reaches terminal velocity and then go no faster. But it is not necessarily the case that heavier objects fall faster than lighter objects. A gold brick will fall as fast as a lead brick of the same size and shape.

Density

The density (more precisely, the volumetric mass density; also known as specific mass), of a substance is its mass per unit volume. The symbol most often used for density is ϱ (the lower-case Greek letter rho), although the Latin letter D can also be used. Mathematically, density is defined as mass divided by volume:

$$p=m/V$$

Atmospheric Pressure

Atmospheric Pressure, sometimes also called Barometric Pressure (after the sensor), is the pressure within the atmosphere of Earth. The standard atmosphere (atm) is a unit of pressure defined as 14.696 psi. The atm unit is roughly equivalent to the mean sea-level atmospheric pressure on

Earth, that is, the Earth's atmospheric pressure at sea level is approximately 1 atm.

The Atmosphere Pressure which envelops objects assists in dictating how fast an object will fall. There is more hydrogen and helium up higher which translates as less pounds per square inch of resistance pressing upon it. In the absence of this resistance, an object will fall faster than when closer to the surface of the Earth. An object falling from 121,000 feet will experience very little atmospheric resistance and fall faster than an object falling at 1000 feet where the atmospheric pressure is far greater.

The Buoyant Force

The buoyant force comes from the pressure exerted on an object by the atmospheric conditions it exist within. Because the pressure increases as the depth increases in water, the pressure on the bottom of an object is always larger than the force on the top - hence the net upward force. The buoyant force is present whether the object floats or sinks. The same apples to other fluids such "air", in terms of Fluid Dynamics.

Imagine a baseball falling from 10 feet. It falls at a certain velocity determined by the Aerodynamics Properties of the ball and The Buoyant Force of Atmosphere Pressure. Now imagine a baseball falling in ten feet of water. It falls significantly slower in water due to The Buoyant Force of Atmosphere Pressure in water. The water "pushes" back up against the ball which increase the drag on the ball.

Aerodynamic Properties

The Aerodynamic Properties of an object create drag on a falling object. Drag depends on the projected area of an object's cross-section or silhouette in a horizontal plane. An object with a large projected area relative to its mass, such as a parachute, has a lower terminal velocity than one with a small projected area relative to its mass, such as a bullet. Hence, a parachute

will experience tremendous drag when falling and fall much slower than a bullet, which has much "sleeker" aerodynamic properties.

In a Nutshell

Electron Density is the DOWNWARD force. Buoyancy is the UPWARD force. Weight comes from the relationship between the Electron Density and Aerodynamic Properties of an object and the degree of Drag that the Atmospheric Pressure creates. Gravity is fictional. There is no confirmation of any attractive force emanating from mass.

Now Add Electromagnetism

Gravity and Magnetism Are One and The Same Thing

In addition to Terminal Velocity, Drag, Electron Density, Atmospheric Pressure, The Buoyant Force, and Aerodynamic Properties we can also factor in the Earth's natural electromagnetic properties, which are clearly evident from the existence of the Magnetic North Pole.

Gravity is not an autonomous field modality. Gravity, misnamed, is merely a lower level of dielectric field coherence, or incoherent dielectric acceleration, if you like. Dielectrics are insulators, plain and simple. Take for example, The Earth, it's nothing but a collection of dielectric condensates, which together create a magnetic field but not as coherent as the magnets we produce, hence the reason "Gravity" has been labeled a weak force. Another way of saying it is Gravity is an incoherent magnetic field distribution.

There is no such thing as Gravity, dielectric acceleration IS (so called) magnetic attraction and IS (so called) Gravity. It is one and the same thing, the only difference is coherency.

A magnet is a coherent and polarized object, any spatial extrapolation is polarization. What drives a magnet is point non-specific and no different from any other holographic fractal in that respect. It is field

incommensurability. A magnet does not have poles it has the inverse of counter-space. Space is the absence of inertia; it has no properties. Space acts on nothing, time acts on nothing. A field in and of itself has no quantity, no physicality, it is not phenomena. Space is a posterior attribute of a field, therefore it does nothing and acts on nothing. Space and Time are not autonomous forces, this is absurd. Modern science has never adequately defined polarity or quantified a field for that matter.

"A magnet has 2 poles" is a description not an explanation. The loss of inertia necessitates polarity. The rest point in the center is a result of pressure mediation. It is concentrated there because it is the inverse of space (force and motion) it is counter-space (inertia and acceleration). What we call a magnetic field is a reciprocating processional hyperboloid resultant of a coherent dielectric object. Electricity is the multiplicative byproduct OF Phi (magnetism) and Psi (dielectricity).

The 800-pound gorilla that shits on the head of modern physics and QM and that is going to turn the world upside down with countless new inventions MUST be and WILL be in dielectrics, not electricity. Classical magnetism does not account for the difference between centripetal convergence and centrifugal divergence and how they interact to cause dielectric voidance or counter-voidance (magnetic vectorization). Which is often incorrectly labelled as magnetic attraction/repulsion.

There is no need for a unified field theory; all fields are already unified. What is not unified is human comprehension of the nature of field modalities in relationship to one another. Mother Nature does not do math and complex calculations with virtual particles. The conjugate forces of reality are simplex and have been understood since ancient times, albeit foolishly dismissed by the arrogance of modern society.

Gravity is left entirely undefined and lacks a scientific denotation in principle, ergo the term is nothing other than a pseudo force and you may as

well say unicorn farts or pixie dust interchangeably. It makes no difference. DESCRIPTIONS ARE NOT EXPLANATIONS!

--https://zeteticzen.wordpress.com/2017/06/15/Gravity-does-not-exist-the-lorentz-contraction-conundrum/

Acceleration in The Aetheric Wind

Acceleration, likewise, then becomes the SHIFTING DIFFERENTIAL POTENIALS between the dielectric displacement within a mass and the dielectric displacement outside the mass in the Aetheric wind creates a down-force in the direction of the negative polarity, as the etheric wind 'blows' through a mass. Aether (ether), a field which connects and permeates all things, was an essential facet of both the philosophy and science of reality in cultures around the world. According to Tesla, the Aether is not an "energy source", since it is composed of tiny independent "carriers immersed in an insulating fluid". The ether, therefore, is a "medium" through which energetic transferences and transmutations can be affected, and electric and magnetic "tubes of force" can be created and carried into a body from space, giving it momentum to propel it.

The shifting differential electromagnetic potential, as the etheric "wind" blows through a mass, clocks at Newton's 9.8m/S/S. There only APPEARS to be this mythical unseen and unmeasurable force called Gravity. But rather, it is simply the very measurable and provable force of electromagnetism.

We manipulate electromagnetism every day, and hence know of its existence. Your car stereo speakers are based upon electromagnetic principles. However, we never manipulate Gravitational fields or use Gravity in any practical engineering applications ever, since it does not exist. We manipulate weight, but weight, as was stated, is the difference between the dielectric displacement within a mass and the dielectric displacement outside the mass in the etheric wind creates a DOWN-FORCE in the direction of the negative polarity, as the etheric wind 'blows' through a mass."

Weight
Weight more specifically is:

- Location Specific
- Medium Specific
- Vector Specific
- Magnitude Specific
- Phase Specific
- Field Coherency Specific

Magnetism: Now Add the Spectrum of Magnetism

There are many varieties of magnetism, and so ferrous elements are not necessary for The Earth's Magnetic Field to manipulate objects. Additionally, Quantum Electro Dynamics and Chromo Electro Dynamics clearly explain how non-ferrous elements, down to the Gluon and Quark levels, exhibit magnetic properties. The Earth requires no Gravitational Field to manipulate objects, ferrous or not.

Hierarchy of types of magnetism:

1. **Diamagnetism**
2. **Paramagnetism**
3. **Ferromagnetism**
4. **.Antiferromagnetism**
5. **Ferrimagnetism**
6. **Superparamagnetism**
7. **Diamagnetism**

Diamagnetism appears in all materials and is the tendency of a material to oppose an applied magnetic field, and therefore, to be repelled by a magnetic field. However, in a material with paramagnetic properties (that is, with a tendency to enhance an external magnetic field), the paramagnetic behavior dominates. Thus, despite its universal occurrence, diamagnetic behavior is observed only in a purely diamagnetic material. In a diamagnetic material, there are no unpaired electrons, so the intrinsic electron magnetic moments cannot produce any bulk effect. In these cases, the magnetization arises from the electrons' orbital motions, which can be understood classically as follows:

When a material is put in a magnetic field, the electrons circling the nucleus will experience, in addition to their Coulomb attraction to the nucleus, a Lorentz force from the magnetic field. Depending on which direction the electron is orbiting, this force may increase the centripetal force on the electrons, pulling them in towards the

nucleus, or it may decrease the force, pulling them away from the nucleus. This effect systematically increases the orbital magnetic moments that were aligned opposite the field, and decreases the ones aligned parallel to the field (in accordance with Lenz's law). This results in a small bulk magnetic moment, with an opposite direction to the applied field.

Note that this description is meant only as a heuristic; the Bohr-van Leeuwen theorem shows that diamagnetism is impossible according to classical physics, and that a proper understanding requires a quantum-mechanical description.

Note that all materials undergo this orbital response. However, in paramagnetic and ferromagnetic substances, the diamagnetic effect is overwhelmed by the much stronger effects caused by the unpaired electrons.

Paramagnetism

In a paramagnetic material there are unpaired electrons; i.e., atomic or molecular orbitals with exactly one electron in them. While paired electrons are required by the Pauli exclusion principle to have their intrinsic ('spin') magnetic moments pointing in opposite directions, causing their magnetic fields to cancel out, an unpaired electron is free to align its magnetic moment in any direction. When an external magnetic field is applied, these magnetic moments will tend to align themselves in the same direction as the applied field, thus reinforcing it.

Ferromagnetism

A ferromagnet, like a paramagnetic substance, has unpaired electrons. However, in addition to the electrons' intrinsic magnetic moment's tendency to be parallel to an applied field, there is also in these materials a tendency for these magnetic moments to orient parallel to each other to maintain a lowered-energy state. Thus, even in the absence of an applied field, the magnetic moments of the electrons in the material spontaneously line up parallel to one another.

Every ferromagnetic substance has its own individual temperature, called the Curie temperature, or Curie point, above which it loses its ferromagnetic properties. This is because the thermal tendency to disorder overwhelms the energy-lowering due to ferromagnetic order.

Ferromagnetism only occurs in a few substances; the common ones are iron, nickel, cobalt, their alloys, and some alloys of rare-Earth metals.

Magnetic domains

The magnetic moments of atoms in a ferromagnetic material cause them to behave something like tiny permanent magnets. They stick together and align themselves into small regions of more or less uniform alignment called magnetic domains or Weiss domains. Magnetic domains can be observed with a magnetic force microscope to reveal magnetic domain boundaries that resemble white lines in the sketch. There are many scientific experiments that can physically show magnetic fields.

When a domain contains too many molecules, it becomes unstable and divides into two domains aligned in opposite directions, so that they stick together more stably, as shown at the right.

When exposed to a magnetic field, the domain boundaries move, so that the domains aligned with the magnetic field grow and dominate the structure (dotted yellow area), as shown at the left. When the magnetizing field is removed, the domains may not return to an unmagnetized state. This results in the ferromagnetic material's being magnetized, forming a permanent magnet.

When magnetized strongly enough that the prevailing domain overruns all others to result in only one single domain, the material is magnetically saturated. When a magnetized ferromagnetic material is heated to the Curie point temperature, the molecules are agitated to the point that the magnetic domains lose the organization, and the magnetic properties they cause cease. When the material is cooled, this domain alignment structure spontaneously returns, in a manner roughly analogous to how a liquid can freeze into a crystalline solid.

Antiferromagnetism

In an antiferromagnet, unlike a ferromagnet, there is a tendency for the intrinsic magnetic moments of neighboring valence electrons to point in opposite directions. When all atoms are arranged in a substance so that each

neighbor is anti-parallel, the substance is antiferromagnetic. Antiferromagnets have a zero net magnetic moment, meaning that no field is produced by them. Antiferromagnets are less common compared to the other types of behaviors and are mostly observed at low temperatures. In varying temperatures, antiferromagnets can be seen to exhibit diamagnetic and ferromagnetic properties.

In some materials, neighboring electrons prefer to point in opposite directions, but there is no geometrical arrangement in which each pair of neighbors is anti-aligned. This is called a spin glass and is an example of geometrical frustration.

Ferrimagnetism

Like ferromagnetism, ferrimagnets retain their magnetization in the absence of a field. However, like antiferromagnets, neighboring pairs of electron spins tend to point in opposite directions. These two properties are not contradictory, because in the optimal geometrical arrangement, there is more magnetic moment from the sublattice of electrons that point in one direction, than from the sublattice that points in the opposite direction.

Most ferrites are ferrimagnetic. The first discovered magnetic substance, magnetite, is a ferrite and was originally believed to be a ferromagnet; Louis Néel disconfirmed this, however, after discovering ferrimagnetism.

Superparamagnetism

When a ferromagnet or ferrimagnet is sufficiently small, it acts like a single magnetic spin that is subject to Brownian motion. Its response to a magnetic field is qualitatively similar to the response of a paramagnet, but much larger.

Although ferromagnetism is responsible for most of the effects of magnetism encountered in everyday life, all other materials are influenced to

some extent by a magnetic field, by several other types of magnetism. Paramagnetic substances such as aluminum and oxygen are weakly attracted to an applied magnetic field; diamagnetic substances such as copper and carbon are weakly repelled; while antiferromagnetic materials such as chromium and spin glasses have a more complex relationship with a magnetic field. The force of a magnet on paramagnetic, diamagnetic, and antiferromagnetic materials is usually too weak to be felt, and can be detected only by laboratory instruments, so in everyday life these substances are often described as non-magnetic.

The magnetic state (or magnetic phase) of a material depends on temperature and other variables such as pressure and the applied magnetic field. A material may exhibit more than one form of magnetism as these variables change."

--Wikipedia

Additionally, the Earth is Magnetic all the way to the Quantum level as Quantum and Chromo Electro Dynamics clearly illustrates.

Quantum Electrodynamics

In particle physics, quantum electrodynamics (QED) is the relativistic quantum field theory of electrodynamics. In essence, it describes how light and matter interact and is the first theory where full agreement between quantum mechanics and special relativity is achieved. QED mathematically describes all phenomena involving electrically charged particles interacting by means of exchange of photons and represents the quantum counterpart of classical electromagnetism giving a complete account of matter and light interaction.

In technical terms, QED can be described as a perturbation theory of the electromagnetic quantum vacuum. Richard Feynman called it "the jewel of physics" for its extremely accurate predictions of quantities like the

anomalous magnetic moment of the electron and the Lamb shift of the energy levels of hydrogen."--Wikipedia

Quantum Chromodynamics

"In theoretical physics, quantum chromodynamics (QCD) is the theory of the strong interaction between quarks and gluons, the fundamental particles that make up composite hadrons such as the proton, neutron and pion. QCD is a type of quantum field theory called a non-abelian gauge theory, with symmetry group SU. The QCD analog of electric charge is a property called color. Gluons are the force carrier of the theory, like photons are for the electromagnetic force in quantum electrodynamics. The theory is an important part of the Standard Model of particle physics. A large body of experimental evidence for QCD has been gathered over the years."

--Wikipedia

The ImpossiBall Story of the Earth's Imaginary Molten Core

Once upon a time, the story that the Earth has a molten iron core that resides about 3,400 miles in the center of the Earth. However, Man has never dug deeper than 7.5 miles into the Earth. The Kola Superdeep Borehole was just 9 inches in diameter, but at 40,230 feet (12,262 meters) reigns as the deepest hole. It took almost 20 years to reach that 7.5-mile depth. So what do we really know about the Earth's core? Let's look at this.

The Assumptionverse: Science Fiction Science

Actually, we have no conclusive facts about there even being any core to The Earth, as we have no conclusive facts proving that the Earth is even a sphere which would have a core.

How Many Licks Does it Take to Get to the Center of an Iron-Filled Tootsie Roll Tootsie Pop?

Why do scientists imagine the Earth's core is made of iron?. To make up their theory about Earth's innards, scientists have looked outwards! That makes perfect sense, right? Scientists have looked out Outer Space to support their conclusions about Earth's core. Under the assumption of an evolving Universe, starting from the assumption of a Big Bang, scientists assume that iron seems to be a favored planetary building block, under the fourth assumption that Supernovas create iron. Once again, nested assumptions are all that is going on here, and zero empirical science.

A Stellar Imagination

As our ImpossiBall Story continues, The Sun is currently burning, or fusing, hydrogen to helium. After the hydrogen in the Star's core is exhausted, the Star can fuse helium to form progressively heavier elements, carbon and oxygen and so on, until iron and nickel are formed. Eventually, stellar fusion produces wood nymphs and sprite elves, but that's advanced Astrophysics beyond the scope of this exposition.

Of course, none of this has ever been observed or confirmed, but it is a nifty evolutionary theory that ranks right up there with the King of the Norse Gods, Thor, and Shakti from Hindu Theology. But, then again, that is what Astrophysics is known best for: Theories that have zero evidence, testability, or credibility.

Playing Heavy Metal in Outer Space

In addition to making elements, Supernovae scatter them, says the ImpossiBall Story. The elements that are made both inside the Star as well as the ones created in the intense heat of the Supernova explosion are spread out into the interstellar medium of the Universe. These are said to be the elements that, in turn, make up additional Stars, Planets, and everything on Earth, including ourselves. "We are Stardust", as the song goes. And

everyone knows that songwriters know more about the composition of the Universe than anyone, right?

A Supernovae of Assumptions

And so, again, except for hydrogen and some helium created in the Big Bang, all of the stuff we and the Earth around us are made of is assumed to have been generated in Stars through sustained fusion or in Supernova explosions. And so, even though there is no way to verify or confirm this Stellar Fusion Evolution Theory nor the creation of elements through Supernovae activity, scientists use it to assume that the Earth must have an iron core because they assume iron came from events they have never witnessed nor can confirm to exist, and so under this series of unconfirmed assumptions, it is assumed that Earth's assumed iron core is burning at 6000 Celsius, which has brought scientist to assume that the Earth's Magnetosphere is created by a the Earth having an active magnetic field producing, interior dynamo. Make sense? Well maybe it does as long as you realize it plays by the rules of science fiction. You can say anything in science fiction, ultimately, because, it just may be true, or it is "true enough", as long as you can never really test it and are able to create oil paintings, CGI images, or use Photoshop to show as confirmation of your ImpossiBall Universe, right?

Interior Dynamo Theory Comes to the Rescue of a Molten Iron Core

The magnetic field around the Earth is said to be generated by electric currents due to the motion of convection currents of molten iron in the Earth's outer molten iron core: these convection currents are caused by heat escaping from the core, a natural process called a Geo-dynamo.

However, at high temperatures, metals lose their magnetic properties. A magnet subjected to heat experiences a reduction in its magnetic field as the particles within the magnet are moving at an increasingly faster and more sporadic rate. This jumbling confuses and misaligns the magnetic domains, causing the magnetism to decrease. Conversely, when the same magnet is

exposed to low temperatures, its magnetic property is enhanced and the strength increases. The Earth's core is said to possess magnetic field qualities derived from its iron core. However, the Earth's core is said to be 6000 Celsius, wherein such magnetic properties would not exist. And so, it's clear that Earth's hot iron core isn't what creates the magnetic field around our planet.

To come to the rescue, scientists propped up their failing iron core theory with another assumption called, Interior Dynamo Theory. In physics, the dynamo theory proposes a mechanism by which a celestial body such as Earth or a star generates a magnetic field. The dynamo theory describes the process through which a rotating, convecting, and electrically conducting fluid can maintain a magnetic field over astronomical time scales. In this theory, Earth's magnetic field is produced by convection currents of an electrically conducting iron-nickel alloy the liquid core, about 3,000 kilometers below Earth's surface. The geomagnetic field is highly variable, there are changes in Earth's magnetic field on a multitude of spatial and temporal scales. Above the liquid outer core is the mantle, the rock in which behaves plastically deformable due to the intense heat and high pressure. At the boundary between Earth's core and mantle at 2900 km depth there is an intense heat exchange, which is on the one hand directed from Earth's core into the mantle. None of these speculation are observable, of course.

And so, inside the Earth, flowing of liquid metal in the outer core generates electric currents. The rotation of Earth on its axis causes these electric currents to form a magnetic field which extends around the planet. A dynamo is thought to be the source of the Earth's magnetic field and the magnetic fields of Mercury and the Jovian planets.

The science behind dynamism is solid, but the application of this theory to an iron core that cannot be confirmed to even exists a big leap for scientists to make. As a theory, it is fine. But to teach that the Earth has a molten core subject to the process of interior dynamism is like teaching the

complexities of Dante's Inferno and his 9 Circles of Hell as a fact in school textbooks. The one thing these two systems have in common is that they both fall under the category of religious speculation.

Iron Man from the Sky

Iron meteorites collected after their fall to Earth, are used also to determine the Earth's core composition. Meteors are made up of minerals rich in silicon and oxygen, "iron", consisting mainly of iron and nickel, or "stony-iron", a combination of the two. So, in other words, scientists have looked at things falling from the sky to imagine what is inside the Earth, based upon the assumption of a Big Bang that might connect the two separate objects. Speculation based upon conjecture. Pretty good science, right?

Why do scientist connect iron from meteorites as the Earth's core composition instead of some other element? Well, that is because scientist speculate that the electromagnetic field of the Earth is caused by this iron core, so iron won the choice for the Earth's core.

In other words, something fell from the sky, so it must be the element that is at the Earth's core because we assume it was made in an explosion that we never saw that came from a bigger explosion that we never saw. And you thought Astrophysics was a science, didn't you?

The Accretion Myth

In astrophysics, accretion is the accumulation of particles into a massive object by gravitationally attracting more matter, typically gaseous matter, in an accretion disk. Most astronomical objects, such as galaxies, stars, and planets, are formed by accretion processes.

As the myth goes, our Solar System began about 4.6 billion years ago when a cloud of dust and hydrogen and helium gases drifting in our galaxy began to condense and contract under its own Gravity, forming a wide, flat, rotating disk. Most of the material collected in the center, condensing into a

sphere of gas — our proto-Sun. Eventually pressures and temperatures in the sphere increased to the point that nuclear fusion began to occur and the Sun, the central star of our Solar System, began to shine. The remainder of the cloud formed a wide disk, swirling around the Sun, called the solar nebula. Dust and gas particles in the nebula occasionally collided and merged. Through this process, called "accretion," these tiny particles formed larger and larger bodies, eventually becoming planetesimals up to a few kilometers across. Some of the planetesimals became so massive that their Gravity pulled on other planetesimals, causing more and more collisions. Because of this, the largest planetesimals grew the fastest, sweeping up material in their paths, and eventually becoming the planets we know today.

However, one has to assume the existence of Gravity, Outer Space to make this myth even remotely plausible, and these two things have never been confirmed to exist. But as myths go…right up there with Apollo and Zeus.

Hot Blooded Check it And See…

The core of the Earth than science speaks is pure conjecture. I do not care how many SONAR, RADAR, or LIDAR experiments have been tried, or how many seismological, magnetic field, or theoretical field data calculations have been accumulated. We just do not know what is 3,400 miles deep, period. We do not even know what is 34 miles deep. We can only speculate.

Scientists imagine this imaginary science fiction core burns at about 6,000 Celsius. How did they arrive at that arbitrary number? A team of scientists has measured the melting point of iron, and then extrapolated from that the temperature of Earth's core at 6,000 Celsius. So, in effect, they made up the idea of an imaginary core and then slapped on a secondary assumption that it is composed of iron to make up the third imaginary speculation of its temperature.

Pretty good science???

That concludes our ImpossiBall Story of the Earth's Imaginary Molten Core.

Chapter 7

Why Rockets Don't Work in the Vacuum of Outer Space

The reason space travel is not possible is because the systems we claim to use to propel a rocket through space operate on gas pressure and there is no gas pressure in space.

Gas pressure requires molecules to be in contact with each other, bouncing off each other, causing millions of collisions per second, etc… If you release gas into the vacuum of space, the first molecule that pops out will shoot off into the distance at a constant speed, so will the one behind that, never catching up with the first one. The third, fourth, etc… all fly off into the distance trying to fill the vacuum by finding their empty corner. So, no matter how much gas you produce none of it will ever change the pressure under a spaceship. None it if will ever push a spaceship. To push a spaceship there must be some locally high pressure under it, which is impossible since the pressure in space is 0 everywhere.

The Nozzle and the Mass flow equation F=MA on Earth

Think about a fire hose shooting water. A force comes directly back against the column of water shooting out. Why? Because the first drop of water has to pass through air, which is dense, causing many collisions, slowing down the drop of water. The second drop, directly behind the first,

will not be slowed down by the air so it will collide with the first drop, the third drop hits the second drop and so on, the fast water coming through the hose pushing through the slower water outside causes Newton's 3rd Law to push back on the column of water. This is why you need people holding the hose to add an unbalanced force otherwise the hose would not be able to push water through that column anymore, the water column would be diverted, and the hose would flop around. It is obvious that one drop of water does not push back on the hose, you need a fast-moving column.

The Nozzle and the Mass flow equation F=MA in Outer Space

Since the molecules leaving the combustion chamber and entering the vacuum never slow down, never collide with any outside objects, nor with each other, their force is always moving forward, away from the ship. There is no way for that force to be returned to the ship. There is no way for the force of the moving molecules to be extracted and used for propulsion. Their force is carried off into the far corners of space. This is also known as Joule Expansion. Remember that as soon as the nozzle is opened, the combustion chamber becomes part of the vacuum of space as is subject to its laws. A closed chamber is under pressure but not an open one.

NASA Is Lying at The Molecular Level

But that's OK because most people don't usually look there. The awesome, spectacular and heroic nature of space exploration is enough to cloud the most logical minds. Most respectable engineering schools won't touch space flight and those who do have tiny departments. If it was really a multi-billion-dollar government funded operation, every school in America would have their hands out for government grants like the do with Engineering, Computer Science and Biology. But why train thousands of the best minds of a generation in a field that doesn't exist?

-- http://fakeologist.com/blog/2015/01/28/why-rockets-dont-work-in-a-vacuum/

Rocketry and Fluid Dynamics

No, rockets do not generate the substance that they allegedly push against for propulsion. It's basic fluid dynamics...it does not matter if it's water or air. It works the exact same way. It's like saying that a submarine makes the water that its propeller pushes against, and this magically propels the submarine without the presence of ocean water pressure acting against the propeller. It is absurd logic. The same exact thing will happen to a rocket in space.

Additionally, because space is as close to a perfect vacuum there is, it is impossible to have thrust. Saying that a rocket pushes off its own gas from combustion is ludicrous. It's no different than saying that you can blow hard enough into a vacuum cleaner nozzle and this will somehow make you travel in the opposite direction of the nozzle. And, a vacuum cleaner is a very extremely small fraction of the vacuum of space. Just like a vacuum cleaner will suck the air right out of your lungs, Outer Space (if it actually existed) would do the same exact thing to a rocket, only many, many, many, many, many, many, many, times quicker and the molecules will dissipate in every direction, making thrust impossible.

That's how Newton's Third Law Works. Molecular collision in the atmosphere transfers energy. Vacuums possess no molecular density and therefore transfer no resistance for rocket thrusters to push from.

Rockets do not work in the vacuum of mythical Outer Space.

Invalid Vacuum Experiments

Often, you can find You Tube experiments that misrepresent the relationship between a rocket and the vacuum of space by putting a model rocket inside a small, enclosed vacuum and allowing the composition of the

propellant to create internal atmospheric pressure through the act of combustion in a Closed System.

No Longer a Vacuum

The nearly transparent exhaust from rocket fuel is due to this engine's exhaust being mostly superheated steam (water vapor from its propellants, hydrogen and oxygen), plus some unburned hydrogen. Any experiment done in a small, enclosed vacuum would quickly convert the vacuum into a non-vacuum of hydrogen, oxygen, and unburned hydrogen.

Thus, this type of experiment is invalid because the vacuum was converted into a pressurized chamber by the introduction of combustion in a CLOSED SYSTEM. However, Outer Space is an OPEN SYSTEM where molecular density, which is required for rocket thrusters to work, is dissipated to nearly an infinite degree. Without molecular density, energy is not transferred through Outer Space, and therefore rocket thrusters would confirm entirely ineffective against the zero-resistance vacuum of Outer Space.

Again, Newtons Third Law applies here. Rocket thrusters must push against some force equal or greater than the mass of the rocket in order to propel the rocket. The vacuum of Outer Space provides zero available force or resistance towards this goal.

Finally, all NASA shows us is CGI rubbish. All Newton's Laws of Motion support the impossibility of Space flight in a vacuum, regardless of how people try to pervert the interpretation of those laws to support their absurdly illogical argument for propulsion in the near perfect vacuum of Outer Space. That is why there are no examples of rocket propulsion in an open system or even a large closed system vacuum. Such an example would expose the lie of space flight immediately.

Pressure Gradient Force and Rocket Thrust

The **PRESSURE GRADIENT FORCE** is the force that results when there is a difference in pressure across a surface. A difference in pressure across a surface implies a difference in force, which can result in the type of internal to external pressure inequality that may cause the acceleration of a rocket, according to **Newton's Second Law of Motion**, where the acceleration of an object is dependent upon the two variables, net force and the mass of the object.

Net Force

By net force, we mean the vector sum of all the forces that act upon an object. That is to say, the net force is the sum of all the forces, taking into account the fact that a force is a vector (a vector is a quantity having direction as well as magnitude or size) and two forces of equal magnitude and opposite direction will cancel each other out. Thus, if a rocket thrust is greater than the weight of the rocket, the rocket will accelerate upwards. If the thrust and weight of the rocket are of equal magnitude, the rocket will remain at rest. The resting state is referred to as "constant velocity", as opposed to "acceleration", when the rocket ascends.

Of course, before a rocket produces thrust, there are a few preceding processes. Thrust is a resultant mechanical force. It is generated through the reaction of accelerating Cryogenic propellants as a mass of gas. The force (thrust) is equal to the exit mass flow rate, times the exit velocity, minus the free stream mass flow rate, times the free stream velocity. And Mass Flow, also known as "mass transfer" and "bulk flow", is the movement of fluids down a pressure or temperature gradient.

Finally, often people think that it is the rocket that pushes the gas out of a rocket's de Laval nozzle. However, the gas moves because of the

PRESSURE GRADIENT FORCE and not because the rocket pushes it out. Therefore, thrust is merely a function of a difference in pressure across the surface between the rocket nozzle and the external ambient pressure under the de Laval nozzle. High pressure moves to low pressure because there is more relative energy in the higher-pressure area (the de Laval nozzle), than the lower-pressure area (the Earth's external atmosphere), and so the thrust escapes down towards the outside air. It obeys the First Law of Thermodynamics, where energy can be changed from one form to another, but it cannot be created or destroyed. The energy from the thrust must go somewhere to conserve itself.

The Conservation of Energy

The Conservation of Energy is a fundamental concept of physics along with the Conservation of Mass and the Conservation of Momentum. Within a domain, the amount of energy remains constant and energy is neither created nor destroyed. Energy can be converted from one form to another (potential energy can be converted to kinetic energy) but the total energy within the domain remains fixed.

Nature Abhors A Vacuum

Further, nature abhors a vacuum or any low-pressure situation, for that matter, and will always try to bring that low-pressure condition into equilibrium with whatever high-pressure condition it is contiguous with.

Now, in Newtonian terms, this **PRESSURE GRADIENT FORCE** looks something like this when applied to a rocket: Just prior to engine ignition, the velocity of the rocket is zero and the rocket is at rest. If the rocket is sitting on its fins, the weight of the rocket is balanced by the re-action of the Earth to the weight as described by Newton's Third Law of Motion, which states that for every action, there is an equal and opposite reaction. There is no net force on the object, and the rocket would remain at rest indefinitely. When the engine is ignited, the thrust of the engine creates an additional force opposed to the weight. As long as the thrust is less than

the weight, the combination of the thrust and the re-action force of the fins balancing the rocket weight create no net external force, and so the rocket stays on the pad. When the thrust is equal to the weight, there is no longer any re-action force through the fins, but the net force on the rocket is still zero. When the thrust is greater than the weight, there is a net external force equal to the thrust minus the weight, and the rocket begins to rise. The velocity of the rocket increases from zero to some positive value under the acceleration produced by the net external force (The Earth's atmosphere). But as the rocket velocity increases, it encounters air resistance, or drag, which opposes the motion and increases as the square of the velocity. The thrust of the rocket must be greater than the weight plus the drag (**t > w+d)** for the rocket to continue accelerating and ascending.

Eventually, as the rocket ascends, eventually the atmospheric pressure surrounding it becomes negligible. And the initially beneficial decrease in drag, which was providing a winning advantage to the thrusters in the Pressure Gradients balance between thrust, weight, and external atmospheric drag, suddenly becomes the source of tremendous Thermodynamic disequilibrium. With the absence of atmospheric pressure, and the drag that went with it, as a rocket experiences the near perfect vacuum of Outer Space, the thrusters are left with no external atmospheric mass (resistance) from the Earth's atmospheric density to push off of, or force (atmospheric pressure) to act upon, and thus, propulsion comes to a halt.

Pressure Gradients Require A Closed Thermodynamic System

A Closed System is required for pressure gradients to exist. In an Open System, pressure escapes and thus, pressure cannot accumulate to distribute into gradients. The fact that the Earth's atmosphere exhibits gaseous pressure gradients is evidence of the Earth being a Closed System, with a barrier between its highest atmospheric layer and anything else that might be beyond this barrier. If there is, indeed, anything else on the other side of this barrier, which is commonly called The Firmament by Enclosed Cosmologist and The

Van Allen Radiation Belts by NASA, nobody knows what it is. To assume it is a vacuum is merely wild, uninformed, chaotic, speculation, rooted in fantasy and zero empirical science.

To Sum Up

In entering the near perfect vacuum of outer Space, one reaches a point where too little ambient pressure destroys the accelerant pressure gradient relationship between the intermediary surface pressure of the de Laval nozzle and the external ambient pressure conditions of the surrounding atmosphere. Less and less ambient pressure eventually leads to Thermodynamic disequilibrium. Finally, the thrusters have no mass to push off of or act upon, and hence, without an EXTERNAL OPPOSING FORCE, as Newtons First Law mentions, the rocket begins "spinning its wheels", so to speak, and going nowhere.

You need an external force to move a body. Atmosphere provides this external force or resistance. In the near perfect vacuum of Outer Space, there is no such external force or resistance, and therefore no workable thrust can be generated to propel a rocket.

Rocket Exhaust is too Light to Provide Sufficient Resistance for Propulsion

Each solid rocket booster holds approx. 1.1 million pounds of fuel. Fully fueled for liftoff, the Saturn V weighed 6.2 million pounds. The fuel comes out very gradually, administering a relatively miniscule amount of combustion weight at a time. This gradual ejection of fuel through the rockets de Laval nozzle cannot provide sufficient weight to push off of for rocket propulsion in a vacuum. Newton First law explains why: Newton's first law states that every object will remain at rest or in uniform motion in a straight line unless compelled to change its state by the action of an external force.

This is normally taken as the definition of inertia. The key point here is that if there is no net force acting on an object (if all the external forces cancel each other out) then the object will maintain a constant velocity. If that velocity is zero, then the object remains at rest. If an external force is applied, the velocity will change because of the force. In entering the near perfect vacuum of outer Space, one reaches a point where too little ambient pressure destroys the accelerant pressure gradient relationship between the intermediary surface pressure of the de Laval nozzle and the external ambient pressure conditions of the surrounding atmosphere. Less and less ambient pressure eventually leads to Thermodynamic disequilibrium. Finally, the thrusters have no mass to push off of or act upon, and hence, without an EXTERNAL OPPOSING FORCE, as Newtons First Law mentions, the rocket begins "spinning its wheels", so to speak, and going nowhere.

Hint: Thrust based Space Flight is Faked.

Newtons' First Law of Motion Requires an EXTERNAL Force

Newton's First Law states that every object will remain at rest or in uniform motion in a straight line unless compelled to change its state by the action of an **EXTERNAL** force.

Rockets require **EXTERNAL** resistance, like an atmosphere to push off of. The rocket does not give its exhaust momentum, the momentum is given by **PRESSURE GRADIENT FORCE**. Conservation of Momentum is a fundamental law of physics which states that the momentum of a system is constant if there are no external forces acting on the system. It is embodied in Newton's first law (the law of inertia). The external force is the pressure gradient force, not the rocket, itself. Atmospheric pressure is an **EXTERNAL FORCE**. Internal combustion does not satisfy the requirements of being an external force. The rocket propellant is part of the

rocket and is not a secondary external force acting upon the rocket. Recall, Newtons' First Law of Motion requires an **EXTERNAL** force.

There is no scientific confirmation of a rocket being able to thrust in a vacuum .

Common Imaginary Secondary Force Error

Advocates of the effectiveness of rocket propulsion in the near perfect vacuum of alleged Outer Space often assert, and quite vehemently, that rocket thrust is pushing against the rocket's thrust chamber, and then out the de Laval nozzle of the rocket, and hence, the resultant posterior exhaust from combustion then becomes the SECONDSARY FORCE acting upon the rocket in order to achieve forward propulsion. In other words, what they are proposing is that the rocket is one force and the rocket's exhaust acts as the secondary force necessary to not violate Newton's Third Law of Motion.

Newton's Laws of Motion:

First law: In an inertial frame of reference, an object either remains at rest or continues to move at a constant velocity, unless acted upon by a **SECONDARY EXTERNAL FORCE**.

Second law: In an inertial frame of reference, the vector sum of the forces F on an object is equal to the mass m of that object multiplied by the acceleration a of the object: F = ma.

Third law: When one body exerts a force on a **SECOND** body, the second body simultaneously exerts a force equal in magnitude and opposite in direction on the first body.

However, since the rocket's thrust exhaust is emanating from, and attached to, the rocket, as an extension of ejection, it does not qualify as a **SECONDARY EXTERNAL FORCE** acting upon the rocket. The rocket and it's exhaust are all one force. Unless the rocket's exhaust is **INDEPENDENT** of the rocket, itself, it is part of the rocket.

In order to qualify as a **SECONDRARY EXTERNAL FORCE**, and obey Newton's Laws of Motion, a force must emanate, **INDEPENDENTLY**, of the initial force, we see when two balls hit each other in a collision. Momentum is Conserved and a NET FORCE is achieved.

The Law of Conservation of Momentum:

"For a collision occurring between object 1 and object 2 in an isolated system, the total momentum of the two objects before the collision is equal to the total momentum of the two objects after the collision." Wikipedia

In the Earth's atmosphere, the secondary force is the atmosphere, itself. It pushes against the rocket's thrust, thereby allowing forward propulsion. It provides the "equal and opposite force" necessary for Newton's Laws to work. But the Earth's atmosphere is homogenously isotropic. Momentum is conserved. The Earth's atmosphere is an enclosed Thermodynamic system allowing initial and secondary forces to operate. In the perfect near vacuum of Outer Space, no such atmosphere exists, and thus, rocket thrust has no "ground" (atmospheric pressure) or foundation to act upon. The rocket's exhaust merely remains part of the rocket as an initial force, and the rocket goes nowhere.

Moving the Goal Posts in Outer Space

One trick that advocates of rocketry working in Outer Space will make is to assert suddenly that Outer Space is actually not a vacuum by saying that the atmosphere of Earth extends all the way to the Moon!. This is a ruse that flies in the face of 50 years of NASA reporting that Outer Space is s near perfect vacuum. Nice try but no cigar.

Transference of Potential Energy to Kinetic Energy

Even though motion may be occurring internally within a rocket, via the conversion of chemical energy thermodynamically to gas pressure, and from there to gas velocity, the absence of molecular density in the

SURROUNDING vacuum of Outer Space will not accommodate the transference of that potential energy into kinetic energy. An atmosphere with molecular density is necessary for the chain reaction of molecular collision to happen that would create sufficient enough resistance to act as a secondary external force against the rocket thrust, thereby propelling it forward.

de Laval Nozzle and a Detailed Thermodynamic Breakdown of Rocket Thrust

Rocket thrust in a vacuum comes from two sources: the momentum of the exhaust and the static pressure of the exhaust. The first term in the equation looks at momentum, which has been written extensively about since Newton first discovered it. The momentum of the exhaust leaving in one direction matches the momentum of the rocket moving in the opposite direction, per Newton's Third Law of Motion. The mass part of the momentum formula is the mass of the propellants, here described as the mass applied per unit time, because the exhaust leaves the system and must be replaced over time by new propellant.

The key here is that the mass enters the thrust chamber as a liquid -- often a dense cryogenic liquid. But it leaves the engine as a gas of much greater volume and much less density than before. To be sure, the mass flow rate into the thrust chamber is the same as the mass flow rate out of the thrust chamber, but the exhaust mass is in a different form that must move much faster in order to sustain that flow rate.

The propellant is first converted to gas in the top of the thrust chamber. It's sprayed together in such a way that it mixes thoroughly, and then the radiant heat from the reaction downstream vaporizes it. Those thoroughly mixed gases are then ignited, creating vast amounts of thermal energy in the working fluid. Every gas responds to an increase in thermal energy by trying to increase its volume and/or pressure. The urge to do so in

a rocket engine is extremely powerful. A wonderful Victorian-era gadget called **a de Laval nozzle** -- a convergent-divergent nozzle -- lets the gas escape from the only remaining hole in the thrust chamber in a way that collimates the flow. All the gas molecules are going in the same direction, maximizing the momentum. Otherwise, pressurized gas escaping from a plain hole in a pressure vessel will expand in a cone-shaped pattern.

The conversion of chemical energy thermodynamically to gas pressure, and from there to gas velocity, is what is occurring in rocket science. However, this model of thermodynamic thrust only applies in an atmospheric rich environment. It does not apply to the near zero vacuum of Outer Space. With zero molecular density in Outer Space, the rocket thrusters have nothing to push off of, thereby nullifying any forward motion in accordance with The Law of Conservation of Momentum. You cannot get an equal and opposite reaction, as Newton's Third Law dictates, from pushing off of combustion, itself. That would be like a swimmer doing a flip turn, missing the wall with his feet, and thinking he will propel forward after pushing off of the water compared to the wall. I've done it. You go nowhere fast. Rocket thrusters burning in a vacuum achieve zero forward motion, assuming any burn will occur at all in the absence of all oxygen, in spite of the liquid oxidizers inside the rocket fuel.

The absence of molecular density in the vacuum of mythical Outer Space simply will not provide the necessary resistance required for Newton's Third Law of Motion to kick in and provide the equal and opposite force required for rocket propulsion. Thrust coming out of one end of the rocket in a vacuum is not an equal and opposite force since it is pushing against nothing and therefore providing no resistant force to meet the mass of the rocket.

Try exhaling into a vacuum nozzle and see if you move., as an analogy. You will not move. The vacuum will suck your "thrust" and nothing will happen to your position.

Recoil Propulsion Systems in a Near Perfect Vacuum

There is a common misunderstanding that rockets do not move by pushing against the atmosphere, but rather, they move by "pushing against their own fuel". As such, they are equated with a type of Recoil Propulsion System. The oft repeated analogy to explain how this works is throwing a ball off the stern of a small boat and the resulting "recoiling", forward movement of the boat, or the recoil energy resulting from firing a gun. However, one must remember that these activities occur in an atmosphere rich, molecular dense environment, with pressure, density, and buoyancy playing major roles on all sides of every object. There is far more than merely "recoil energy", independent of anything else, operating in the movement of these objects.

For instance, in the case of the boat, when you throw a ball, you are also pushing down and slightly back against the bottom of the boat to brace yourself, which creates a sufficiently opposing perturbation and resistant force against the bottom of the boat, which, in turn, moves the boat slightly, depending upon the coefficient of friction of the water against the bottom of the boat. If the boat was in fresh water it would move more easily than if it was in thick sludgy, swamp water. The reason I am emphasizing these added descriptive variables and directional vectors is to highlight the fact that surrounding environmental forces, variables, and pressures effect the motion of objects in an atmosphere rich, Newtonian world. Subsequently, Recoil Propulsion, which many think is the force behind modern rocket science, does not happen "in a vacuum", pun intended.

And in the case of the gun recoil, in an atmosphere rich environment, a gun exerts a force on a bullet to accelerate it and consequently experiences an equal and opposite force, causing the gun's recoil or kick. You are kicked back because the air pressure around you, which supports your equilibrium and ability to stand undisturbed, is challenged if you use your muscles to brace yourself against the gun's recoil. Your stable rigid stance is presenting an initial force against the secondary external force of the gun's recoil, and

whichever force is stronger will move the other. If you stand stable, you can transfer, or "ground" some of the recoil shock down through your legs, into the Earth, in which case now you have, in a theoretical sense, the mass of the Earth to help you resist the recoil of the gun as your new initial force.

Now, if you were standing shoulder high in water, you would have more density and pressure surrounding you, since water is denser than air, and it would be easier to resist the gun's recoil. It is an equation of density and pressure from every direction. This is primarily an example of Newtons' First Law of Motion: Every object will remain at rest or in uniform motion in a straight line unless compelled to change its state by the action of an EXTERNAL force.

Nevertheless, all these Newtonian forces are governed by the molecular density of the ubiquitously homogeneous and isotropic abundance and presence of ambient pressure and atmosphere. These Newtonian forces arise from and are inextricably woven into the presence of Earth, Air, Water, or whatever molecular rich environment you may inhabit. Density, buoyancy, and the directional vectors caused by the dielectric toroidal electromagnetic field of The Earth govern all bodies and dictate all movement in every direction.

Now, let's look at other **Recoil Propulsion Systems**. The propulsion of all rockets, jet engines, deflating balloons, and even squids and octopuses is explained by the same physical principle—Newton's Third Law of Motion. Matter is forcefully ejected from a system into a resistant atmosphere, whether it be water, or air, or whatever, producing an equal and opposite reaction by virtue of the resistance of the atmosphere on the ejecta. For instance, a rocket pushes against the atmosphere and since the atmosphere has mass, the rocket's thrust pushes against this atmospheric mass to achieve forward propulsion. Change the atmospheric mass, and the power of the rocket's thrust will change accordingly by an index of pressure gradient equilibrium.

Ok, now let's take the abundant and robust atmosphere away, as in the near perfect vacuum of Outer Space, and suddenly, there is no directional opposing vector for any object at all. At every angle, you are pushing and pulling against absolutely nothing, and therefore, in the case of our gun recoil, as the accelerant in the bullet explodes (which cannot happen in a near perfect vacuum, anyway, but for arguments sake...), it expands equally out into all directions and gets consumed by the near perfect vacuum of Outer Space and the bullet goes nowhere because there is no air in the barrel to provide the necessary directional vector from air pressure to guide the bullet. It simple has zero air pressure all around it for billions of light years of distance, and thus, zero reason to move anywhere. No pressure equals nothing acting upon anything, and thus, no movement occurs. In Outer Space, no combustion would occur, regardless of oxide or liquid oxygen accelerants, and, therefore, no ensuing recoil would happen.

Guns in Outer Space

To further elaborate on this, it should be noted that guns only fire because they are fired in the Earth's atmosphere, replete with oxygen. Guns have been tested in vacuum chambers at conditions of one trillionth (10−12) of atmospheric pressure (100 nPa), and with each trial, the gun did not fire because, as soon as the vacuum tight and enclosed explosion of the bullet accelerant was triggered by an ignition stem with wireless remote control, the explosion was instantaneously consumed by the vacuum in the chamber and rendered null.

The conclusion is, and ever shall be, the absence of oxygen and molecular density in the surrounding space of an object will prevent any propellant from attaining combustion, regardless of infused metal oxide, oxygen, or accelerants in the chamber. As soon as they hit the vacuum, there is an immediate consumptive and snuffing vacuum effect.

Navigation in a Near Perfect Vacuum

Ok, think of a rocket cruising through the Earth's atmosphere as blanketed on all sides by a heavy environment of atmosphere. It is cutting though that blanket of atmosphere like a knife in order to propel forward. Its atmosphere has density and holds the rocket aloft via certain aerodynamic principles which govern flight, which include weight, lift, thrust, and drag:

1.) Weight is the force of Gravity. It acts in a downward direction—toward the center of the Earth.
2.) Lift is the force that acts at a right angle to the direction of motion through the air. Lift is created by differences in air pressure.
3.) Thrust is the force that propels a flying machine in the direction of motion. Engines produce thrust.
4.) Drag is the force that acts opposite to the direction of motion. Drag is caused by friction and differences in air pressure.

Ok, now let's say the plane was flying and the atmosphere disappeared. Could it still fly? Well, as the atmosphere disappears, the wings of the plane are no longer generating lift. The plane would begin to fall. If the plane is a prop plane the propellers are no longer generating thrust since the propellers work like rotating wings. If the plane is a jet plane, then the engines flame out and stop generating thrust since there's no oxygen to burn fuel anymore. And the existing forward speed of the plane would continue with no drag from the air. A body at rest will remain at rest, and a body in motion will remain in motion unless it is acted upon by an external force. Newton's First Law of Motion. The plane or jet will free fall towards the Earth with no aerodynamic principles left to help it navigate.

Without atmosphere all bets are off. There would be zero molecular density left to push off from at any angle and this would render all vehicular navigation useless. You will simply hit the ground and die. Likewise, zero molecular density in the near perfect vacuum of Outer Space nullifies any directional navigational vectors.

Non-Explosive Recoil Propulsion Systems in a Near Perfect Vacuum

The same may be said for a rocket floating in Outer Space. Similarly, because there is zero molecular density left to push off from at any angle, this condition would render all vehicular navigation useless. But then, suddenly, you remember that you have a compressed spring inside your rocket which can release a cannon ball out of the rocket's de Laval nozzle, thereby converting potential energy to kinetic energy, which should move your spacecraft forward in accordance to the Newtons' Laws of Motion, and the Conservation of Energy and Momentum Equations, right? The rocket's locomotion should activate in the opposite direction of the cannon ball release, in the same way a cannon recoils backwards after firing a cannon ball over the bow of a pirate ship on Earth, right? After all, this is the very same logic inherent within modern rocket science, in that Recoil Propulsion is essentially how rockets propel themselves, with no help from the atmosphere. They are said to move by quote, "pushing against their own fuel".

Surprise, surprise, wrong! Only in an atmosphere rich environment can potential energy convert to kinetic energy in a closed system like a gun, or cannon, or a rocket chamber and cause kinetic motion OUTSIDE the chamber. A cannon ball and spring would have no effect in a vacuum. There needs to be some perturbation of the surrounding atmospheric molecular density to cause the necessary conditions for kinetic motion. But in a vacuum, there is no such molecular density available that would transmit the potential energy from the release and kick of the spring. Guns fire in the partial vacuums of Earth-bound lab experiments, but these vacuums are not a millionth as "vacuous" as the alleged vacuum of mythical Outer Space, if we are to believe NASA.

However, in the near perfect vacuum of Outer Space, you get nothing. No burn, no combustion, no movement, no recoil...nothing. All heat, energy, motion, and potential energy translating into nothing. It is just one infinite void of vacuous zero pressure, zero atmosphere, life killing nothing, only

created to make you feel insignificant and powerless in its presence, with its paradoxical Cornucopia of zero pressure and resistance, magic Gravity, and undetectable light-years, a sheer extravaganza of worthless NASA fantasy that never existed, and never will exist, and that's why the multitudinous plethora of internal contradictions and inconsistencies in rocket science, the Heliocentric Model, and all of Astrophysics abound and will forever expose and betray the entire Jesuit Copernican Model for the gibberish and nonsense that it always was and always will be.

Thrust Through Different Molecular Densities

Density is a measure of how tightly a certain amount of matter is packed into a given volume. The more the stuff is packed in, the higher the density. Density can be calculated by dividing an object's mass by its volume. It is commonly measured in grams per milliliter or grams per cubic centimeter.

Thrust is dependent upon the atmospheric molecular density of the medium it is acting upon. Thrust is the force of flight that pushes in the direction of the aircraft's motion. A greater density means a greater resistant mass, and a greater mass means a greater force. Thus, the amount of thrust generated must increase when the atmospheric density increases. Since higher airspeeds are normally used at higher altitudes, thrust generally decreases with an aircraft's altitude. But increasing altitudes can erode thrust because the mass of air being consumed is also decreasing as the air gets increasingly more rarified, causing less mass to push against, which eventually prevents thrust from working at all, as when the atmospheric density approaches the near perfect vacuum of Outer Space. Finally, in Outer Space, zero propulsion can be achieved due to zero atmospheric molecular density. Therefore, we see a tremendous diminishing return to severely decreased atmospheric density with respect to thrust.

Rocket engines produce thrust by the expulsion of an exhaust fluid that has been accelerated to high speed through a propelling nozzle. The fluid

is usually a gas created by high pressure (150-to-2,900-pound-per-square-inch (10 to 200 bar)) combustion of solid or liquid propellants, consisting of fuel and oxidizer components, within a combustion chamber. As the gases expand through the nozzle, they are accelerated to very high (supersonic) speed, and the reaction to this pushes the engine in the opposite direction. Combustion is most frequently used for practical rockets, as high temperatures and pressures are desirable for the best performance.

Nevertheless, all rocket propulsion is dependent upon the molecular density of the medium it is operating within. In other words, thrust is dependent upon the atmospheric molecular density of the medium it is acting upon.

Absence of Gravity in Deep Space

Playing by the absurd rules of NASA, for Newton's law to apply to physical objects, there must be Gravity and an opposing external mass to react with, neither of which are present in outer Space.

For a rocket to propel a space craft if must create thrust, which is only possible if an object has weight, hence thrust is measured in pounds. And since there is no Gravity in space, any rocket would not have the weight required to push-off of whatever it is that is supposed to be available for the rocket to push-off of, thereby failing to produce thrust, which is what is supposedly required to move a rocket.

Conventional Explanation of How Thrust Might Work in a Vacuum

The force of friction propels ordinary objects such as cars and trains. The train pushes on the track and the car pushes on the road because of friction between the wheels and track or road. However, a rocket in space has nothing to push against. Therefore, the force of propulsion must be something other than friction. One theory states that a rocket works because of the law of conservation of linear momentum. Momentum is defined as the mass of an object times its velocity. Simply stated, the conservation law says

that in a closed system (one without outside influences) the total momentum of the system remains constant. Now the momentum of various parts of the system may change, but the total momentum must always be constant.

Consider a machine gun mounted on a lightweight cart. If the gun is fired, the bullets go in one direction while the cart recoils in the other. The magnitude of the momentum of the bullets equals the momentum of the cart but the directions are opposite. Thus, one momentum is positive, and one is negative, making the total change (their sum) zero. Although things are now moving, the total momentum of the gun-cart system has not changed.

In a similar manner, a rocket is theorized to move in space because the gases are given momentum as they are expelled by the rocket engine. Consider the rocket resting in space. There is no momentum in the system. Next, the engine ignites. As the exhaust gases go in one direction, the rocket goes in the other to keep the total momentum of the system constant. This momentum change of the gases gives the rocket the "push" to go forward.

This thrust depends upon the speed of the exhaust gases and the mass of gas being expelled each second, sometimes called the burn rate in pounds of fuel per second. On Earth, air tends to inhibit the exhaust gases getting out of the engine. This reduces the thrust. However, in space since there is no atmosphere, the exhaust gases can exit much easier and faster, thus increasing the thrust. Therefore, the rocket engine is actually thought to work better in space than here on Earth.

However, this widely popular theory omits one crucial factor: All propulsion, including rocket propulsion, is dependent upon the molecular density of the medium it is operating within. In other words, thrust is dependent upon the atmospheric molecular density of the medium it is acting upon. The “push” that the theory talks about is mythical unless it occurs in relationship to something with mass to push off of. Atmosphere offers this

mass. The vacuum of Outer Space does not, and so thrusters do not work in Outer Space. --https://www.uu.edu/dept/physics/scienceguys/2002Sept.cfm

NASA's Skateboard Nonsense

NASA claims rockets in space behave according to Sir Isaac Newton's Third Law of Motion: Every action produces an equal and opposite reaction when the forces acting between the two objects are equal in magnitude and opposite in direction When a rocket shoots fuel out one end, this propels the rocket forward, and no atmosphere is required. NASA says this principle is easy to observe on Earth. If you stand on a skateboard and throw a bowling ball forward, that force will push you and the skateboard back slightly. This Recoil Propulsion explanation to space flight is there way of explaining away the need for atmosphere for effective thrust in the near perfect vacuum of Outer Space.

However, does this explanation really hold up under deeper scrutiny? When you throw a bowling ball from a skateboard there are the two vectors of you throwing the ball one direction, and the bowling ball pushing against you, which is the second vector of directional force. However, there is a third vector of force that NASA conveniently leaves out from the solution. And they leave it out to falsify their claim, not because they do not know about this. It is high school physics level stuff.

Because you are standing upon the skateboard, there is third vector of force pushing down towards the Earth, due to your mass (weight). The Earth, in turn, "pushes back up at your skateboard" towards you to support the weight of the skateboard with you and the bowling ball on it. When you throw the ball in one direction, the energy used to achieve this is transferred down though your legs into the skateboard and finally into the Earth to support the work of throwing the ball. In other words, you are not just creating "an equal and opposite reaction" by throwing the bowling ball. You are also activating a downward vector or force towards the Earth, which

would, in turn, excite the skateboard to move from the energy exchange, due to the Law of Conservation of Momentum, which states that within a domain, the amount of momentum remains constant while momentum is neither created nor destroyed, but only changed through the action of forces, as described by Newton's Laws of Motion.

But it gets even more complicated. A fourth variable is introduced to the overall equation when you consider the coefficient of friction created by the bowling ball being thrown in the atmospheric density of the Earth. That atmospheric mass of ambient air pressure creates a second resistant force, which would activate Newton's Third Law of Motion. When you add up all these opposing vectors of force, resistance, and pressure, naturally you will move when throwing a bowling ball from a skateboard from Earth. But it is not merely from NASA's explanation of Newton's Third Law of Motion in effect. However, take that same skateboard and place it floating in the near perfect vacuum of Outer Space, and then throw the bowling ball. Nothing would happen.

Newton's Laws of Motion Were not Created to Apply to Vacuum Conditions

This is the same reason that rockets do not work in Outer Space. No atmosphere, no resistance, and zero pressure equate to no motion. Newton's laws of motion were not created to apply to extreme vacuum conditions. He invented them in the 16th century and did not run any tests in vacuum chambers with one atom per cubic inch of pressure. His laws require molecular and atomic density, or in other words, a "medium".

Further, Newtonian Mechanics completely falls apart at the quantum level, and scientists had to create an entire new branch of physics called Quantum Theory to create new laws for the quantum level. And even the quantum level is suspect after we have learned that it may simply be largely repackaged occult Kabbalah and ancient Hermetic fantasy, and nothing more.

The moral to the story is:

The significance of Newton's Laws of Motion "must not be considered in a vacuum" ...pun intended.

Sound Also Cannot Move Through a Vacuum

When the rebel forces destroy the Death Star in "Star Wars Episodes IV" and "VI," each Death Star goes out with a loud explosion. Such explosions happen in many sci-fi movies and TV series, such as when "Star Trek's Enterprise destroys an enemy vessel, or when the Nostromo self-destructs in "Alien." The problem here is that sound does not carry in space.

Sound is an example of a longitudinal wave. The sound energy moves along by vibrating molecules of gas, liquid or solid. When the bell in the above animation flexes away, it pulls in on the surrounding air particles. This creates a drop in pressure, which pulls in more surrounding air particles, creating another drop in pressure, which pulls in particles even farther out. Each vibrating air molecule passes its vibration on to the next air molecule between the bell and your ear to make the sound wave propagate.

When the vibrating air in your ear canal hits your eardrum, it causes the eardrum to vibrate with the same frequency as the sound wave. The bones of the middle ear transmit this vibration to the inner ear, where the vibration sets up a standing wave in the fluid of the inner ear. The wave vibrates certain hair cells in the inner ear, which transmit nerve signals to the hearing center of your brain and you sense the sound. The important part of this process is that air molecules propagated the sound wave from its source to your ear. The same thing happens when you hear sounds underwater or through walls (liquids and solid propagate the sound waves as well). However, in the vacuum of space, there are no molecules to propagate sound waves and you

don't hear anything. The movie poster of "Alien" was correct with its tagline, "In space, no one can hear you scream!"

Sound cannot travel through a vacuum, either. A vacuum is an area without any air, like space. So sound cannot travel through space because there is no matter for the vibrations to work in. Molecular density affects both rocket thrust and the propagation of sound in outer space.

Rocket Propulsion and Ambient Pressure

A rocket blasting off the launch pad changes from a state of rest to a state of motion. A rocket on the launch pad is balanced. Upon thrusting, the rocket begins pushing off the surface of the launch pad, and the pad serves to, in effect, "push" up the rocket, as it resists the rocket's thrusting force. From there, the Ambient Pressure of the Earth's atmosphere assumes the role of that force, or mass, which resists the rocket's thrust so that the rocket may continue ascending. Without the surrounding Ambient Pressure of the Earth's atmosphere, the rocket combustion would have nothing to push off of and so the rocket would come spiraling back to the ground, which we have seen many times with NASA when the pressure gradient equilibrium between thrust and ambient pressure become imbalanced.

To understand this, we must examine the basic thrust equation:

$$F = q \times Ve + (Pe - Pa) \times Ae$$

F = Thrust

q = Propellant mass flow rate

Ve = Velocity of exhaust gases

Pe = Pressure at nozzle exit

Pa = Ambient pressure

Ae = Area of nozzle exit

Ambient Pressure

The ambient pressure on an object is the pressure of the surrounding medium, such as air, gas, or liquid, in contact with the object. Within the atmosphere, the ambient pressure decreases as height increases. By measuring ambient atmospheric pressure, a pilot may determine altitude. In Outer Space the ambient pressure drops to zero atm because of the near perfect vacuum of Outer Space. The standard atmosphere (symbol: atm) is a unit of pressure defined as 1,013.25 mbar (101,325 Pa; 1,013.25 hPa), equivalent to 760 mm Hg (torr), 29.9212 inches Hg, or 14.696 psi.

Atmospheric Density of Air

Ambient Pressure is a function of the Atmospheric Density of the surrounding air, denoted ϱ (Greek: rho), is the mass per unit volume of Earth's atmosphere. Air density, like air pressure, decreases with increasing altitude. In the near perfect vacuum of Outer Space, the atmospheric density approaches, if not reaches, zero, with zero mass.

Atmospheric Density and Ambient Pressure provide the mass necessary for a rockets thruster to push against in order for the rocket to propel forward. We see this most strikingly at liftoff when the rocket's thrusters push against the launch pad, and then continue to push against the atmospheric density, or ambient pressure of the Earth's atmosphere in the rocket's ascent.

Rocket Propulsion

A rocket engine is a device in which propellants are burned in a combustion chamber and the resulting high-pressure gases are expanded through a specially shaped nozzle to produce thrust. The function of the nozzle is to convert the chemical-thermal energy generated in the combustion

chamber into kinetic energy. The nozzle converts the slow moving, high pressure, high temperature gas in the combustion chamber into high velocity gas of lower pressure and temperature. Gas velocities from 2 to 4.5 kilometers per second can be obtained in rocket nozzles. The nozzles which perform this feat are called DeLaval nozzles (after the inventor) and consist of a convergent and divergent section. The minimum flow area between the convergent and divergent section is called the nozzle throat. The flow area at the end of the divergent section is called the nozzle exit area.

Hot exhaust gases expand in the diverging section of the nozzle. The pressure of these gases will decrease as energy is used to accelerate the gas to high velocity. The nozzle is usually made long enough (or the exit area great enough) such that the pressure in the combustion chamber is reduced at the nozzle exit to the pressure existing outside the nozzle. It is under this condition that thrust is maximum and the nozzle is said to be adapted, also called optimum or correct expansion.

Nevertheless, we must remember that the part of the equation that rocket scientists use regarding **Pa = Ambient Pressure**, which is dictated by the molecular density of the Earth's atmosphere, needs to be taken into account if we are to understand how rocket thrusters work to achieve forward propulsion. Without this P-value for ambient pressure, the thrusters have nothing to push off of and the rocket will not propel forward. The rocket combustion cannot push off of itself, any more than you can ascend into the air without pushing off of some mass (force) that, in effect, pushes back. This is what the Earth's atmosphere does for the rocket. It provides a mass or force to resist the rocket's thrust in order to achieve forward propulsion. --http://www.braeunig.us/space/sup1.htm

Sagnac Fiber Optic Gyroscope

For 60 years, a secret tech, on all commercial planes, holds flat and heading absolute. to nanometer on all axis and heading.

Sagnac gyros know up, absolutely and locks on it flat parallel upon initialization. Bolted to a plane's frame flat and takeoff runway flat it can land flat anywhere on flat Earth.

Take off AND land with SAME initial flat set.

initialization or spin up, to set Attitude for level flight and MULTIPLE takeoff and LANDINGS.

They Cannot and DO Not reset them in flight or reset them at every landing.

In flight spin up, impossible, gyro / plane needs absolute stillness to lock. Time to initialize ½ hr.

Must be real time correction for attitude directly with gyros as guide pilot or autopilot.

No moving parts, ultrafast direct flight control and not computer enhanced or controlled. i.e. No lag. No computer hiccup or crash or error.

Conclusion

Flat Earth Model

All landing or takeoff surfaces MUST be the same and a planes ATTITUDE is locked to it.

So, a plane can land anywhere flat like takeoff runway. "Cage" or initialized. (i.e. gyros lock in flat)

The fact they takeoff level and land level are the same is confirmation secured.

Globe Model

ALL landing runways would have a DIFFERENT angle, relative to takeoff ground.

The globe moves and has steady reference area to call home.

All landings would be at a different angle on a globe.

The Science of Gyros

The Sagnac interferometer gyroscope: Light in bottle, spinning flat to Higgs symmetry, zero point.

They stack 2 spools of several kilometers of fiber optic line in 2 equal loops (or mirrors) One clockwise, one counterclockwise.

When perpendicular to Earth, CW loop light is equal to CCW loop, plus 15°/ hr. (Aether wind universe rotation around us. Canceled out by delay one loop of gyro)

The perfect light gyro, spinning in the medium of the universe in a perfect balance, The Z (1) Axis of Aether. Also called the Higgs boson and it has an axis. Z up (a quantum needle up).

A Universal flat reader. Any topple off that axis, the gyro will compensate to regain flat through avionics. Further, it locks all directionalities, xyz roll, pitch, yaw, direction, heading. Navigation stems FROM not send TO this device. It only self initializes, on and off. There is no adjustment.

They set at takeoff runway, initialize or spin up, locked in

Device move= Light move = Motion = Gyro

It centers itself parallel perpendicular to Flat Earth. The gyro is locked to a fixed consistent point in space via light in Aether essentially.

Zero movement detected.

A stationary Flat Earth is confirmed.

Earth is flat and fixed.

No axio-rotation and no revolving around the Sun is confirmed..

--https://www.facebook.com/groups/biblicalflatEarthers/ Marc Genest

10 Points Discrediting Einstein

1. Earth is flat, measured (7.5 miles frozen lake ...no refraction)

2. Earth is Still. measured, Michelson interferometer / gyro.

3. Gravity: mass to mass attraction. None measured

4. Sagnac gyro is a flat governed device operating by Higgs symmetry of space, via light, dependent on universe light law. (light meter, in Aether flat realm, i.e. Earth cannot affect light). Gyros fly flat not curves, it knows not what terrain it travels., the flatness of takeoff is same Earth wide. on off and a wire, out for off level v+ -. that's it.

5. No photo of specular highlight on spherical water.

6. Space travel a confirmed deception.

7. Zero evidenced produced for ball.

8. Hidden technology for 60 years. Amass trillions of dollars and maintain unquestionable control.

9. Historical accounts of obvious manipulation of society, through school and scientific domain. Bullying science indoctrination, refuting fathers and ridiculing and even killing family authority. Government was made into the All-Knowing Father, the authority of everything.

10. Large Hadron Collider LHC people acknowledge Aether and so accrediting Sagnac and Michelson.

All points work to absolutely discredit Einstein.

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Chapter 8

The Heliocentric Web of Deceit

"Oh, what a tangled web we weave when first we practice to deceive…"…The Heliocentric Web of Deceit

The Flat-Out Plane Truth: Once You Go Flat, You Never Globe Back

The only evidence of successful Outer Space rocketry is the hearsay of satellites and supposed space missions. There is no actual real empirical evidence of rockets in space or the ability to work in the alleged vacuum of space. And no, CGI movies from film production companies, NASA and Hollywood (Same thing), do not qualify as evidence.

Astrophysics is The New World Religion

Astrophysics is the repackaging of ancient mystery Babylonian Occultism and the modern general overall worship of the cosmos, in the context of The Luciferian New Age, is The New World Religion.

Scientism Versus Science and The Flat Earth

Scientism is not science.

Scientism is a religious approach to science where things are asserted with no confirmation, and the epistemological boundaries (the differences between fact and opinion) are established. Scientism is characteristically anchored in magical properties, fantastic ideologies, unfalsifiable claims, and a dogmatic and consensus-based adherence to what may be called The Scientific Dictatorship.

Science, on the other hand, deals with the empirical observation of what is, the analysis of what is, the forming of a premise and hypothesis of what is, examining the content and properties of things, and just general deciphering how nature works. Additionally, it is crucial to note that when scientists collect data through empirical methods of observation and measurement, they are not proving anything. They are merely collecting data. Data is neutral. It confirms nothing. It merely provides some starting point for scientists to begin the more formidable tasks of forming an initial premise, building an hypothesis upon that initial premise, and finally, the construction of a conclusion based upon the data, the testing of the hypothesis using experimental repeatable methods, and the final interpretation of everything considered.

Remember however, that an hypothesis is distinguished from a premise. They are different. The difference between a premise and an hypothesis is that a premise is a proposition antecedently supposed or confirm, something previously stated or assumed as the basis of further

argument, and on which some truth is inferred or follows as a conclusion. In other words, a premise is an assumption that something is true. If the premise is true, then the conclusion must be true. The idea in science is to propose a premise and then expand it into a specific hypothesis that is testable for falsifiability. If you or no other person or scientist can confirm your premise wrong by scientific method, then your conclusion is thought to be true until otherwise confirmed wrong. This is typically called a "working hypothesis". It is not a fact yet. It is merely the best guess we have when considering the raw data and experiments and measures derived to test the initial premise.

For instance, to assert a premise that no curvature can be empirically observed on the topography of The Earth based upon thousands of experiments, and thousands of experimenters over thousands of years, is a very reasonable premise to make. Is it a true premise? Well it would need to be tested before one could assert its truthfulness. Nevertheless, it is a falsifiable claim. Anyone with a telescope go out and compare the expected curvature on The Earth, with a radius of 3,958.8 miles, using the equation: miles squared x 8 inches, to calculate the expected curvature on segments of the Earth that we can use to either confirm or reject the presence of curvature on the Earth, particularly when employing laser tests over flat water. It is a key thing to remember that the claim that there is no measurable or observable curvature on the Earth is a falsifiable claim. It is a claim that can and has been tested thousands of times. The data is insurmountable and readily available.

It is appropriate to inject here that NASA delights in making unfalsifiable claims that no human being can test except them. You would need trillions of dollars and access to the most advanced equipment in the history of Mankind to even begin to test the claims NASA makes. Most of their claims involve invisible forces and Outer Space entities like Dark Matter, Dark Energy, Gravitational Waves, Black Holes, and past epochs in time that no human can go to nor observe for testing. For example, The Big Bang is

conjectured to have occurred 14.5 billion years ago. Was anyone there to verify this? No. And so, any Cosmological Origins story made up based upon gazing at the stars with expensive equipment is a good way to extract 52 million dollars a day from international taxpayers, but no way to confirm anything about the actual origins of the Earth or the alleged "Cosmos" that NASA worships with their Ouija Board approach to science. All these claims are unfalsifiable claims, and are therefore, scientifically invalid.

Of course, one is free to conjure up fireside fantasies of Big Bangs, Gravity, Quasars, trillions of light years of distance, lethal Gravity sucking Black Holes, and Relativistic Time Dilation all you want, but all these claims are Scientism claims, and not based upon anything even remotely resembling empirical science. And no, Virginia, cartoons and computer animations of Outer Space from NASA and The Discovery Channel are not scientific confirmations of the existence of Outer Space or anything in the Star Trek fantasy that NASA calls Astrophysics.

The problem all along has been the interpretation of the data. We all have the same data. We all witness that the Earth has no curvature from any altitude, minus Go Pro Camera shenanigans. We all see the same Stars, and to behold a shimmering light in the night sky and call it a Star is a form of data collecting. But interpreting that shimmer of light as a massive inferno of nuclear energy that is burning two million light years away is purely fantastic conjecture on the magnitude of ghost stories and Zeus's Lighten Bolts and should never be taken seriously. NASA cannot test such a claim any more than 15th century Copernicus could. It's damn good science fiction, but horrible science.

And so, returning to our analysis of the scientific method, given the data that no curvature can be found on Earth, one could formulate the premise that the Earth, indeed, exhibits no spherical properties. From that premise, one could derive or extrapolate the hypothesis that the Earth is flat, and then go about testing that hypothesis with lasers and Nikon P900 Zoom

Lens cameras. However, you might not want to make the leap to say that the Earth is flat at this point because your data simply demonstrates zero curvature. It does not mean the entire Earth is, indeed, flat. Interpreting the raw data to mean that the entire Earth is perfectly flat is a jump. All you can really say is that from the collected data, you cannot confirm the Earth is spherical. That's RAW data. Interpreting the data to mean the Earth is flat would require one to test every point on the Earth, but since nobody that we know of has ventured into the farthest outlands of frigidly dark and unbearable Antarctica, with one exception being Admiral Byrd's measly few hundreds of miles into it, it is simply not testable, yet. It's possible to test, and therefore a falsifiable claim, but just not yet.

Again, this is very different than trying to test the Cosmological Origins of the Earth as 14.5 billion years ago. That is not testable. It will remain a wild, unconfirmed, science fiction fantasy forever. In science, that is called an unfalsifiable claim. It cannot be tested. Another example would be the claim that Outer Space is a vacuum. Well, nobody has ever been to Outer Space, and there is no evidence of it even existing except in science fiction movies, so the claim cannot be tested, as well. It is an unfalsifiable claim, and therefore, a scientifically invalid claim.

Now, a faulty premise would be that The Earth exhibits curvature. That is false data. If you start with that claim, you have started with corrupted data and any conclusions you derive from thereon out will be equally corrupted and false.

Recall that a hypothesis is a suggested solution for an unexplained occurrence that does not fit into current accepted scientific theory. The basic idea of a hypothesis is that there is no pre-determined outcome. For a hypothesis to be termed a scientific hypothesis, it has to be something that can be supported or refuted through carefully crafted experimentation or observation. This is called falsifiability and testability, an idea that was advanced in the mid-20th century by a British philosopher named Karl

Popper, according to the Encyclopedia Britannica. You can support or refute the hypothesis that the Earth is not spherical. It is therefore a scientific hypothesis to make the conjecture that the Earth may be flat and to begin testing this hypothesis for its integrity and validity.

Experimentation is employed to understand a particular subject, including the validity of claims and the hypothesis and conclusions that proceed from such claims, as well as what can be confirmed or not. If men invent theories that cannot be confirmed, that is unconfirmed theory, and is not to be considered as indisputable fact. Ideas such as Evolution, Gravity, The Copernican Heliocentric Cosmological Model, and The Big Bang are unconfirmed theories based upon an overtly twisted, long standing misinterpretation of data, regardless of the temper tantrums and relentless objections of religiously zealous Fundamentalist Materialists and Scientism Puppets such as the late Carl Sagan, Richard Dawkins, and Neil de Grasse Tyson. Evolution, Gravity, The Copernican Heliocentric Cosmological Model, and The Big Bang are unprovable using the scientific method. They are the relics of Scientism and dying a little each day, thanks to millions of clear-headed people breaking the hypnotism and vicious spell of Jesuit Vatican 15th century mesmerism, with its Sun (Helios) Worshipping occultism. When agreed on by consensus, and taught as fact in textbooks, The Copernican Heliocentric Cosmological Model is not much different than teaching children a Godless religion. Scientism, with a singular occult-based religion driving it known as, Astrophysics, is at its core, an Atheistic and Pantheistic alternative to the belief in an Intelligent Creator. Scientism promotes many wildly illogical and unreasonable concepts that are totally unprovable and contrary to what our natural senses observe.

If you tell people the Earth is Flat, that is your interpretation of the data, but a little difficult to swallow since nobody has tested every inch of the Earth. Nevertheless, it makes sense given the data. But if you say all the known data demonstrates that The Earth exhibits zero curvature, you have

made a strictly scientifically valid claim which is both testable and provable. And if you go further to form the hypothesis that the Earth is Flat and test that hypothesis with scientific experiments to finally conclude that the Earth is Flat because zero curvature can be detected, you have made a scientifically accurate conclusion. You've played by the rules of empirical science and the ball is now in the court of those who would claim otherwise to support their premise that the Earth is spherical using the same empirical method as you.

So far, millions are hot on the trail of this debate, and, to date, not one person has ever found curvature from any altitude on the Earth. Is it safe to conclude the Earth is Flat given thousands of years of such a singular finding? Well, let's just say it is the best "working hypothesis" we have, and as such, until confirmed otherwise, we are going with that conclusion.

Scientism

I think many people are growing more disillusioned by our culture's overconfidence in Science. They tend to give almost salvific significance to it. They stretch science from a fruitful method of inquiry to a comprehensive picture of the whole of the reality. We hear stuff like 'Physics is a theory of everything,' 'Science is the end of philosophy,' 'the avenue of all truth,' the maker of the atomic bomb, and the end of all questions. I agree with Wittgenstein, who called this type of scientism "almost too ridiculous for words."

"Scientism" is a tricky word. What I am calling 'scientism' is not equivalent to the actual practice of science. Scientism, as I'm using it, is referring to those people who attempt to stretch scientific knowledge into a metaphysical picture of reality. Rather than accepting the epistemological limits of scientific knowledge, they try and get science to answer questions that science is simply not interested in. For example, thinking that scientific

facts are enough by themselves to produce moral meaning and answer moral questions.

I guess I disagree with your assessment that I "have a huge misconception of what science is." I would never suggest that science is "irrelevant to how we understand the world." Nor would I ever suggest that empirical/scientific knowledge is irrelevant to moral evaluations. You make it seem as if I think science is just "irrelevant" to philosophy or just life in general. Rhetorically it makes your position look really sensible and me like I'm hopelessly confused. The only problem is I would never suggest any of that.

In truth, I don't really have anything critical to say about epistemological or methodological naturalism. What I am critical of is ontological naturalism, scientific reductionism, eliminativists (i.e. those overly reductive types who say the self is illusion; people like Daniel Dennett or Alex Rosenberg if you're familiar with their work).

To use the example from moral philosophy again: We agree that scientific knowledge is not irrelevant, but it is also not sufficient in and of itself to ground a moral theory, such as: utilitarianism, deontology, virtue ethics, etc. The ONLY kind of "scientism" which I am critical of is the type that might argue that science is sufficient within itself to ground moral facts (e.g., Sam Harris). As if a certain mode of moral reasoning, say utilitarianism, just naturally falls out from a scientific understanding of the world. So, my criticism of scientism is highly specified to a certain group. I am critical of those who act as if there are literally no explanatory limits to scientific knowledge. To the extent that you agree that "The limits of the scientific inquiry are well understood and proposed by Methodological Naturalism's auxiliary principles" then we have nothing to disagree about.

As far as the relationship between science and epistemology: "Since empirical justification is the only method, we have in order to evaluate a claim

as knowledge, that means that science is the best way we can use to evaluate knowledge claims." You probably have to spell this out in more detail for me to know what you mean. Do you mean ALL knowledge claims? Or certain knowledge claims? Are there not certain reasonable claims that science has no means of evaluating? For example, the idea that other people have subjective consciousness? What about Kant's use a priori or synthetic reason? I know that certain mathematical sets are true, or that A = A, or that "all bachelors are married men" not through experience but through pure reason.

--Matt Lewis

Michio Kaku on Modern Cosmology

Quote from Professor Michio Kaku in the documentary, ***The Principle***:

"...In cosmology we are off by a factor of 10 to 120. This is the largest mismatch between theory and experiment in the history of science."

There is a crisis in today's current Heliocentric Model, that crisis is being wrong about everything by a factor of 10 to the 120. The other crisis that follows is that a bunch of mindless, non-thinking sheep will believe anything they're told because it's coming from an "authoritative" figure. Little do they know their current belief structure has been constructed for them to keep them participating as a slave for the Elite Ruling class.

At what point did we start to take seriously "scientists" who had the word "theoretical" in their title? --
https://www.youtube.com/watch?v=XFVARio4pAk

The Van Allen Radiation Belts Do Not Belong to Van Allen

"A Van Allen radiation belt is a zone of energetic charged particles, most of which originate from the solar wind, that are captured by and held around a planet

by that planet's magnetic field. Earth has two such belts and sometimes others may be temporarily created. The discovery of the belts is credited to James Van Allen, and as a result, Earth's belts are known as the Van Allen belts. Earth's two main belts extend from an altitude of about 640 to 58,000 km (400 to 36,040 mi) above the surface in which region radiation levels vary. Most of the particles that form the belts are thought to come from solar wind and other particles by cosmic rays. By trapping the solar wind, the magnetic field deflects those energetic particles and protects the atmosphere from destruction." --Wikipedia

However, there is no confirmation that these belts are the result of "energetic charged particles, most of which originate from the solar wind, that are captured by and held around a planet by that planet's magnetic field". All that was just conjecture without any confirmation other than basing this interpretation of higher electromagnetic presence upon an unconfirmed Heliocentric Model. The fact that there is high altitude radiation is true, but the interpretation of how this radiation came into existence is pure opinion and wild speculation. The idea that we live in an Enclosed Cosmological System and that the Van Allen radiation Belts are actually the result of electromagnetic resonance and ionization at the level of The Firmament is just as plausible as James Van Allen's science fiction hypothesis.

Once again, we see how Scientism, with its continual misrepresentation of its theories and conjectures as facts beyond refutation or criticism, is a religion of sorts which demands Faith and obedient submission from its followers, the scientist and unsuspecting layman of the world.

Why Don't Meteors Ever Fall Straight Down?

Meteors shoot laterally across the night sky. We have all seen it. But they never shoot straight down, which should be as common as seeing a meteor shoot laterally if they were, indeed, coming from Outer Space. It is no refutation to say that meteor change direction as they come into the Earth's

atmosphere due to Gravity or some Coriolis Effect, since neither of these science fiction ideas can be confirmed to even exist. Additionally, perspective cannot answer this either, since anywhere you stand ion the Earth, you could still witness a meteor shoot straight down, in all the billions of people on Earth for thousands of years and millions and millions of meteor showers. It just does not add up

What does add up is that meteors are the result of electromagnetic discharge and arching from The Firmament and we are witness to this electromagnetic discharge and arching, which has mistakenly been interpreted as shooting space rock. Since this electromagnetic discharge is high up, it traverses a lateral path. When the electromagnetic discharge is lower in the atmosphere, it has the ability to shoot straight down, as we see often witness with lightening as it shoots perpendicular to The Earth to strike a lightning rod.

Mystery solved.

Two Things a Straight Line Path of Reflection on Water Suggests

1) "The fact that the Sun and Moon's reflections on water always form a straight line path from the horizon to the observer confirms the Earth is not a ball. If Earth's surface was curved it would be impossible for the reflected light to curve over the ball from horizon to observer."

   --Eric Dubay

2) Also, the fact that we see the Sun and Moon's reflections on water always form a straight line path from the horizon to the observer means The Sun cannot be 93 million miles away. It would have to be a local light to achieve such a reflection pattern. If The Sun were 93 million miles away, its light would have to travel through the

> Earth's various atmospheric layers, dust, pollution, and hence the Sun's light would experience refraction, diffusion through dispersion, atmospheric lensing and distortion, and refection in its path to the observer. Such an incoherent light could not give us the clean straight band of light that we see on the ocean as The Sun or Moon recede into the distance ("set"). Only a local, close Sun, which is inside The Firmament, could provide such coherent light as to result in the Sun and Moon's reflections on water to form a straight line path from the horizon to the observer.

Celestial Myth Making

Gazing up into the night sky and seeing the moving constellations is no confirmation of Gravity. All it does is verify movement. We do not know anything more than that. It could be apparent movement caused by reflective and refractive properties of the Firmament, for all we know. It could be the result of Sonoluminescent luminaries following toroidal electromagnetic channels, which we interpret as "orbits" in the Heliocentric Model.. There could be any number of reasons why we see Stars appear to move in predictable cycles?

Inferring Gravity as some magical invisible glue that communicates over millions of miles is really good science fiction but very bad science. For instance, Polaris exists as the center hub from which all other Stars in the night sky exhibit apparent rotation around. However, from this observation,

we cannot conclude, beyond doubt, that Polaris possess some magical gravitational field holding the surrounding celestial bodies prisoner in an orbital dance. We simply do not know.

Now, The Heliocentric Model tries to explain this observation of the Stars predictable cyclical movement an entirely different way. This bizarre, twisted model asserts that it is actually The Earth which is spinning to make the star appear to rotate above you. The idea is that the observe relative to the star is actually doing the moving, and that is why the Star appear to cycle around. It is much like saying you are on an escalator and that is why objects appear to move above you. You are moving and this gives the optical illusion of stationary objects above you moving. Of course, there is no evidence to support this wild conjecture and it, by no coincidence or accident, closely aligns with the Einsteinian Relativity fantasy for a good reason. It is all coming from the same occult Kabbalistic source. Relativity, just like Heliocentrism, is merely repackaged occult fantasy sold as actual science. And so it was easy for the Scientism Priests who concocted Heliocentrism to append Relativity to it in order to assert that the Earth is moving instead of the Stars. And yet, do you feel any motion?

Do you feel like you are on a huge rotating escalator and the Stars are not moving above you? Of course not. Every fiber in your being and all your senses inform you that you are perfectly still on a completely motionless plane, and that The Stars are obviously moving above you.

Wandering Stars…So Called Planets

One Jesuit masterpiece of deception was to place the alleged Planets in orbit around the Sun, while placing the remaining Stars lightyears away outside of the fantasy solar system. The entire model is like a magician's show, where the left hand is doing something while you are distracted by the right hand. And this sleight of hand was done for a reason. It was done to reinforce the idea of Gravity. If the Planets are in orbit around the Sun, it

must be because of the Sun's gravitational field, as the Heliocentric delusion goes. And so, in this twisted model we are deceived into looking at the Stars, which are obviously in the same celestial province and as The Planets, and imagine that they are billions and billions of miles beyond the Planets' orbital habitation. The more reasonable and sensible conclusion is that the Planets and Stars are all part of the same general domain and they all move together in one vast connected array of configurations, known as constellations. The Planets are actually "Wandering Stars", and they traverse paths different than the Stars, but there is nothing to suggest that they geographically closer than the Stars.

Antipodal and Sublunar Tidal Variance, Gravity, Curvature, The Electromagnetic Properties of Salt Water, and The Moon

The Ocean Tides and the Assumption of "Sides of The Earth "

The rise and fall of ocean tides cannot be used as a confirmation of any sphericity of The Earth . Rising and lowering tides are simply the reflection of Lunar influence on the oceans, but do not confirm that the entire mass of The Earth 's water in molding and curving itself onto a ball spinning at 1000 miles an hour to create 360 degrees of aqua sphericity. The whole notion is patently absurd and is not supported by any scientific empirical study in the history of Mankind. If we accept that high and low tides are caused by the Moon, which I will show is reasonable, there would be a bulge on ONE portion of The Earth , and the unaffected portion would not reflect this.

The idea that The Moon is causing bulges on opposite sides of a ball at the same time to form a kind of aqua ellipse of The Earth , as many

Heliocentrists believe, is not supported by any known observable model or laws of physics. It remains an unsubstantiated and non-verified hypothesis.

Additionally, the entire assumption that The Moon is effecting sides of a ball, itself, is unfounded. There is no indication that a ball, with nocturnal and diurnal sides, is being affected by The Moon. The tides simply rise and fall where The Moon is either present or absent. They are no indications that this phenomenon is occurring on opposite sides of a ball. It is simply happening where The Moon passes overhead. Since The Moon effects a massive portion of the Earth as it passes overhead, it would necessarily extend its influence over such a large swath as to make it appear that opposite sides of a ball were being effected, when in reality, Heliocentrists have extended and wrapped the Azimuthal Equidistant Projection of the World over a ball in order to create this illusion that the tides are on opposite sides of a ball.

It's another Heliocentric Hat Trick.

The Earth 's Solid Land Mass is Not Bulging From The Moon: Missing Curvature?

Another red flag in the Heliocentric explanation of tides proving the sphericity of The Earth is that The Moon is obviously not causing a bulge in the Earth 's solid land mass. And so, how would The Moon's tidal pull confirm that The Earth is curved if only the oceans are being attracted by The Moon? Sphericity must include the entire mass of The Earth , and not just the oceans. You still need to account for why The Earth 's inert land mass is curving in seamless synchronous sphericity with an ocean mass that has a Lunar driven reason to bulge. These are two de-synchronous masses that somehow magically conform together continuously to create a sphere. There is still no scientific explanation in the Heliocentric Model for such a notion.

How Much Sublunar Point Ocean Water Should Be Curving According To The Heliocentric Model?

The Earth 's circumference is allegedly 24,901 miles, making one side a semi-circle of approximately 12,450 miles. And so, that's 12,450 miles of Sublunar Point aqua curvature that needs to be accounted for.

Gradual Ebb and Flow Variance and Expected Aqua Curvature

The change from low to high tide is known as "flood tide", while the change from high to low tide is called "ebb tide". The technical term for the difference in water level between high tide and low tide is "tidal range". The flow and ebb are gradual, so it is not accurate to say that a high or low tide lasts around 6 hours and 12 minutes, i.e. a quarter of a lunar day. The variation between high and low tide is very different from place to place. It can range from almost no difference to over 16 meters (over 50 feet).

And so, over a distance of 12,450 miles, we can expect at the most, an arc of 50 feet of tidal variance.

Ok, what is the expected curvature of the Earth at just 1000 miles distance:

1000 miles x 1000 miles x 8 inches x 12 inches to get feet = 666,667 feet of expected Earth curvature over a span of 1000 miles.

And yet over a span of 12,450 miles, the tidal variance arc, at its greatest, is said to be merely 50 feet high?

See the problem?

You literally have to assert, without any confirmation, that The Earth is curved, and then insert your little 50 feet of ocean bulge over a 12,450 mile arc in order to claim…wait for it… The Earth is curved. Its pure Sophistry and circular reasoning. First you assert that The Earth is curved in order to

later assert that The Earth is curved. Got that? No confirmation needed…just a blind assertion and 50 feet of ocean bulge over a 12,450 mile arc.

Subsequently, The Sublunar Point, nor the fictitious Antipodal Point, can be said to confirm that The Earth is curved if The Moon is only causing a 50 foot arc of curvature over 12,450 miles. The Heliocentric Model contradicts itself with no help from anybody else. This is typical of Heliocentric logic: First you assume something unconfirmed, and then you layer over it additional unconfirmed hypotheses to obfuscate the initial lie.

The Antipodal and Sublunar Points

One of the main components of Earth 's physical system is the hydrosphere. The hydrosphere is the sum of Earth 's water, in the ocean, the ground, on the surface, and in the air. Approximately 71 percent of Earth 's surface is covered in water. Just because one side of the Earth is affected by Lunar pull at night, does not mean the other side is rounded in the exact same manner. In fact, it is the opposite. If the oceans are bulging at night due to the Moon's effect at The Sublunar Point of the Earth , then that same effect is absent at Antipodal Point of The Earth (The opposite side).

In The Heliocentric Model, the low tides are the result of the absence of The Moon's influence upon the Earth 's oceans. In this model, the Earth morphs into an ellipse, with bulging water on the side where The Moon is prominent, The Sublunar Point, and a slightly lesser bulging oceanic condition, or "lower high tide", on the opposite side of The Earth , The Antipodal Point, where The Moon is not directly facing. In other words, they are claiming that The Earth morphs into an elliptical football shape due to the Moon's influence, with squashed sides where the Moon has little pending effect.

But why are they saying this?

Here is why: Magic Gravity and Newton's Laws of Inertia

Invoking Magic Gravity and Newton's Laws of Inertia

The explanation that the Heliocentrists invoke involves magic Gravity, with a perversion of Newton's Laws of Inertia. In Newton's First Law, an object will not change its motion unless a force acts on it. In Newton's The Second Law, the force on an object is equal to its mass times its acceleration. In Newton's The Third Law, when two objects interact, they apply forces to each other of equal magnitude and opposite direction. Using Newton's Laws, Heliocentrist claim that magic Gravity and inertia act in opposition on the Earth 's oceans, creating tidal bulges on opposite sides of the Earth . Allegedly, on the "near" side of the Earth (the side facing the Moon), the gravitational force of the Moon pulls the ocean's waters toward it, creating one bulge. And on the far side of the Earth , inertia dominates, creating a second bulge. In other words, in the Heliocentric Model, The Moon's gravitational field allegedly creates convexity of one side of The Earth 's oceans at night, while creating convexity of the other side of The Earth 's oceans at the same time.

Now Add The Sun's Magic Gravity as a Cherry on Top

In The Heliocentric Model, The Sun also plays a major role, affecting the size and position of the two tidal bulges. The interaction of the gravitational forces generated by the Moon and the Sun can be quite complex. In this way the combination of Gravity and inertia create two bulges of water. One forms where the Earth and Moon are closest, and the other forms where they are furthest apart. Over the rest of the Earth , Gravity and inertia are in relative balance. Because water is fluid, the two bulges stay aligned with the Moon as the Earth rotates.

Got all that?

That is their story. It's like a horror movie where you, as the audience, are forced to suspend all disbelief to believe in the characters and plot. The entire Heliocentric Model is a Rubic's Cube of shifting, non-verifiable, and unconfirmed hypothesis, always careening and pivoting upon unconfirmed gravitational forces, with mathematical variables that do not even remotely reflect the visible world or known measurements.

Football Earth : The Heliocentric Fumble

Just to be absolutely clear about The Heliocentric Model, imagine the ocean is shaped like a football pointing at the Moon. The football's pointed ends represent the parts of the Earth experiencing high tide and the football's flat sides are the parts of the Earth experiencing low tide. The bulge on the far side of the Earth is caused by inertia. The water moving away from the Moon resists the gravitational forces that attempt to pull it in the opposite direction. Because the gravitational pull of the Moon is weaker on the far side of the Earth , inertia wins, the ocean bulges out and high tide occurs. In a nutshell, the tidal bulges are primarily caused by the Moon's fictional gravitational pull upon the Earth . That fictional force can have two separate components. It can pull matter "vertically", by which we mean perpendicularly to the Earth 's surface. And it can also pull things "horizontally" (i.e. in a direction that runs parallel to the face of the Earth).

Think I am kidding?

Go research it.

Go to any geological site and they will propose this model. They will say that the tides are very long-period waves that move through the oceans in response to the forces exerted by the Moon and Sun, and that the result is a kind of elliptical football Earth . It is as bad as Niel de Grasse Tyson's pear shaped Earth nonsense.

A Glance at The Heliocentric Model and The Sun's Alleged Tidal Influence

In The Heliocentric Model, The Sun is 27 million times larger than The Moon. Based on its mass, and again only according to The Heliocentric Model, the Sun's alleged gravitational attraction to the Earth is more than 177 times greater than that of the Moon to the Earth . Now, if we are to strictly adhere to Heliocentric logic to this issue of tidal effect, we insert that Newton's law of universal gravitation states that the gravitational attraction between two bodies is directly proportional to their masses, and inversely proportional to the square of the distance between the bodies. Therefore, the greater the mass of the objects and the closer they are to each other, the greater the gravitational attraction between them.

Hence, if tidal forces were based solely on comparative masses, the Sun should have a tide-generating force that is 27 million times greater than that of the Moon. Additionally, again only in The Heliocentric Model, the Sun is allegedly 390 times further from the Earth than is the Moon. Thus, its tide-generating force is reduced by 390 to the third power (390 x 390 x 390), or about 59 million times less than the Moon. Because of these conditions, the sun's tide-generating force is about half that of the Moon.

Saltwater and Electromagnets

Saltwater conducts electricity more efficiently than freshwater, and its conductive properties create a moving magnetic field when an electromagnet is placed nearby. Then, the saltwater creates an opposing magnetic field, causing turbulence (erratic changes in pressure and flow velocity) in the water. When a charged magnet comes into contact with saltwater, the ions flow through the metal to become stabilized, resulting in the electrical field. The sheer size of The Moon enables it act as a magnetic field, thereby influencing The Earth 's ocean and creating the tides that we measure at night.

The Magnetic Properties of The Moon

There's a problem with thinking that The Moon has no magnetic properties. The problem is that the scientific data shoes otherwise. Rocks from The Moon show evidence of magnetic fields existing too recently in lunar history to fit the unsubstantiated inner dynamo core theory of how the Moon's magnetic field is created. Regardless, the magnetic field of the Moon is very weak in comparison to that of the Earth , but it is real, measurable, and has an effect upon the tides of The Earth 's oceans.

Tesla Magnetic Flux Density and Lunar Magnetism

During the Apollo program several magnetic field strength readings were taken with readings ranging from a low of 6γ (6nT) at the Apollo 15 site to a maximum of 313γ (0.31mT) at the Apollo 16 site, note these readings were recorded in gammas(γ) a now outdated unit of magnetic flux density equivalent to 1nT, with "T" referring to Tesla Units. Tesla The Tesla symbol: T is a derived unit of the magnetic B-field strength (also, magnetic flux density) in the International System of Units. One Tesla is equal to one weber per square metre. The unit was announced during the General Conference on Weights and Measures in 1960 and is named in honour of Nikola Tesla, upon the proposal of the Slovenian electrical engineer France Avčin.

The Swarm Earth Explorer Mission and The Earth 's Oceans' Magnetic Field

The ebb and flow of salty water, caused by our Moon's electromagnetic pull, can induce their own magnetic field, one which a trio of European Space Agency's (ESA) satellites has mapped in exquisite detail.

Known as "Swarm", the trio of satellites was blasted off into orbit back in 2013 to help us better understand the planet's magnetic field. Imagine the surprise among ESA's researchers when the satellites stumbled into a whole new magnetic phenomenon. The Swarm Earth Explorer mission consists of a constellation of three satellites that measure variations of the magnetic field on The Earth .

Quote from Swarm Earth Explorer Mission Team Leader Nils Olsen (Technical University of Denmark)

"It's a really tiny magnetic field. It's about 2-2.5 nanotesla at satellite altitude, which is many times weaker than the Earth 's magnetic field," Nils Olsen, from the Technical University of Denmark, told BBC News, but it still has an effect upon the ocean's tides. What set the satellite trio apart from its peers, and enabled this discovery, is the way in which the satellite trio measures water. Other devices we've sent in orbit record tides as a change in sea-surface height, but Swarm's magnetic instruments view the movements of the entire column of water, all the way down to the seabed."

Water is diamagnetic, meaning that it has weak magnetic qualities when a magnetic field is applied to it. However, adding salt reduces its diamagnetism but makes it a better electrical conductor, meaning it will start interacting with magnetic fields. Since oceans house humongous quantities of water, and as tides cycle around ocean basins, the overall effect is enough to 'pull' the Earth 's geomagnetic field lines along. The interaction between saltwater and the Earth 's magnetic field also generates electrical currents, which, in turn, induce their own magnetic signals, thereby effecting the Earth ;' ocean tides at night, in the absence of the conversely repelling electromagnetic properties of The Sun during the day.

The magnetic signature of the tides causes a "weak magnetic response" deep below the sea, Nils Olson explained, which could allow us to peer into the electrical goings-on The Earth 's topical Lithosphere.

Stars Are Not Suns

There is nothing to suggest that Stars are distant Suns. The Stars are, theoretically, tiny, but high intensity, electromagnetic manifestations of Sonoluminescence, while the Sun is a much larger electromagnetic creation. Your senses tell you this and they are correct. And, the Sun is not a close Star.

Scientism's Modus Operandi: "It Must Be True!"

Many "scientists" have a way of saying, "It has to be this way because it is our best theory.", instead of merely offering their theory as what it is…a theory, nothing more." Invoking the authority of "science" is something we hear all too often, and it might be fair to criticize people for denying compounding evidence on a given issue, but holding up "science" as some depository of knowledge that needs to be universally respected goes directly against the spirit of research. It's also naive.

A lot of flawed research gets published and publicized without ever being questioned, and it's a far more pervasive problem than you might imagine. Researchers suggest that a majority of findings published in studies are false — and the claims are pretty well reflected in tests. One study published in Science attempted to replicate 100 psychology studies but could only manage to get the same results for 36.

Empirical evidence is the information received by means of the senses, particularly by observation and documentation of patterns and behavior through experimentation. The term comes from the Greek word for experience, (empeiría).

On the other hand, something theoretical is concerned with theories and hypotheses. It's not necessarily based on real life or meant to be applied to real life. Theoretical things are based on theory and ideas, while practical ones are based on practice.

When a scientist claims something must be true, just because he feels strongly about his theory and can see no other way for something to occur, that is Scientism. Good examples of unprovable Scientism theories are:

- Evolutionary Theory
- The Big bang Theory
- The Theory of Gravity

- The Heliocentric Theory
- Most of Quantum Physics
- Most of Astrophysics
- Most of Modern Scientific Cosmology

Architects of a Spherical World

The Flat Earth Controversy and One Man's Quest for Truth

Some thoughts related to the Flat Earth Controversy…

PART 1: Architects of a Spherical World?

With few exceptions, most ancient cultures basically had some concept of the Earth as an enclosed system, very similar to that which is depicted in the Hebrew Bible: The Flat Earth model is an archaic belief that the Earth's shape is a plane or disk. Many ancient cultures have had conceptions of a flat Earth, including Greece until the classical period, the Bronze Age and Iron Age civilizations of the Near East until the Hellenistic period, India until the Gupta period (early centuries AD) and China until the 17th century. It was also typically held in the aboriginal cultures of the Americas, and a flat Earth domed by the firmament in the shape of an inverted bowl is common in pre-scientific societies.

The paradigm of a spherical Earth appeared in Greek philosophy with Pythagoras (6th century BC), although most Pre-Socratics retained the flat Earth model. -- Wikipedia: http://en.wikipedia.org/wiki/Flat_Earth

Their cosmography as far as we know anything about it was practically of one type up till the time of the white man's arrival upon the scene. That of the Borneo Dayaks may furnish us with some idea of it. 'They consider the

Earth to be a flat surface, whilst the heavens are a dome, a kind of glass shade which covers the Earth and comes in contact with it at the horizon.'" Lucien Levy-Bruhl, Primitive Mentality. "The usual primitive conception of the world's form is flat and round below and surmounted above by a solid firmament in the shape of an inverted bowl."

It's not until we get to about 500 years before Christ that we finally start to see people questioning the previous models held by the ancient world to be true. Before anyone was able to physically go out and explore the "ends of the Earth," from about 500 BC to 150 AD, various Greek philosophers theorized the idea that the Earth could be spherical in nature, with north and south polar regions. But no one could actually confirm anything through physical observation of an alleged South Pole for instance. Please keep this in mind. This is pre-exploration of the alleged poles. It was during this pre-pole exploration age that people like Pythagoras and later, around 200 BC, the Greek mathematician and philosopher, Eratosthenes began to put forth their theories.

Prior to that however, it must be noted that the far more advanced builders of megalithic structures such as the various pyramids and temples we see across this Earth were among those who believed in an enclosed, flat Earth model. In that regard, I found the following quote by Winston Churchill rather interesting...

The farther back you can look, the farther forward you are likely to see.

Even to this day we still can't figure out how the ancients built such incredible structures. So, could it be that they knew something that was lost to humanity due to the theories of men such as Pythagoras and Eratosthenes? I think so. The very fact that the farther back you go in history, the more prevalent the belief in an enclosed, flat Earth becomes, should give us all pause to consider carefully.

I'll get to Pythagoras in shortly, but first I'd like to address Eratosthenes. So the story goes, sometime around 200 BC or so, Eratosthenes invented the discipline of geography. He is best known for being the first person to calculate the circumference of the Earth, which he did by applying a measuring system using stades, or the length of stadia during that time period. He was also the first to calculate the tilt of the Earth's axis. I don't know what his calculation was exactly, but according to modern science, this is what they say concerning the Earth's tilt today:

The Earth currently has an axial tilt of about 23.4°.[7] This value remains approximately the same relative to a stationary orbital plane throughout the cycles of precession.[8] However, because the ecliptic (i.e. the Earth's orbit) moves due to planetary perturbations, the obliquity of the ecliptic is not a fixed quantity. At present, it is decreasing at a rate of about 47" per century.

We have all been taught that the seasons are caused by the 23.4° angular offset (obliquity) between the Earth's axis of rotation and a perpendicular to the Earth's orbital plane with the Sun (see obliquity below). The Earth's rotational axis stays nearly fixed in space, even as the Earth orbits the Sun once each year. As a result, when the Earth is at a certain place in its orbit, the northern hemisphere is tilted toward the Sun and experiences summer. Six months later, when the Earth is on the opposite side of the Sun, the northern hemisphere is tilted away from the Sun and experiences winter.

-- http://aa.usno.navy.mil/faq/docs/seasons_orbit.php

Earth is tilted on its axis 23.4 degrees relative to its orbit around the sun. This causes Earth to experience seasons. From late March to late September, Earth is in the part of its orbit where its North Pole is tilted toward the sun. Those of us who live in the northern hemisphere observe that the sun appears higher in the sky than it does at other times, and we experience more hours of daylight. Since we receive greater accumulated solar

energy at this time of year, our temperatures are warmer than they are in other seasons. From late September through late March, Earth is in the part of its orbit where the North Pole is tipped away from the sun. During this time, the southern hemisphere receives more heat and light from the sun, while northern hemisphere inhabitants see the sun lower in the sky and experience less than 12 hours of daylight. The seasons are not caused by the slightly elliptical orbit of Earth. On the contrary, Earth is slightly closer to the sun in the northern hemisphere winter.

This tilt appears to be well-designed for life. If Earth were tilted less, the polar regions would receive less energy, reducing the habitable area of the planet. If the Earth were tilted more, the seasons would become more extreme, potentially reducing plant-growing seasons and making the environment less hospitable.

--http://www.icr.org/article/7691/

So according to multiple witnesses (both secular and Christian), the Earth is allegedly tilted at 23.4 degrees off of the center of a 90 degree angle. Well, 90 - 23.4 = 66.6. I suppose that's probably just a coincidence. Or is it? See, this is the sort of thing that catches my attention. Because these are Antichrist clues and such clues always lead back to Apollo-Osiris-Orion-Nimrod... who I firmly believe is the Beast of Revelation that we call the Antichrist.

In this particular leg of my adventure, I've been seeing how the Greek god Apollo is literally taking center stage in this whole idea of a globe. This is so interesting, because we are seeing more and more information coming out leading us to believe in the return of Apollo. Consider the recent "discovery" of the statue of Apollo, which was "raised from the sea" a couple of years ago:

When Jwdat Abu Ghrb spotted a dark shape last summer in the waters off Gaza, where he was diving for fish, he initially thought it was a corpse.

"I was afraid," he told CNN. "I put on my goggles, dove underneath and still couldn't tell what it was. I resurfaced and got some help from other people and family members and came back, and after full four hours of trying we managed to get it out of the water and I was shocked by what I found." It was a life-size bronze statue, believed to be a 2,500-year-old depiction of the ancient Greek god Apollo. He described the half-ton object as "treasure pulled out of the sea."

We are all familiar with the "All Seeing Eye." But few understand where this whole idea came from. At some point, either before or after Nimrod's death, it would seem that he lost an eye. Anuki, the servant that interpreted Nimrod's dream (and possibly the author of the tales of the Anunnaki?), said that part of the dream means "nothing else but the seed of Abram will slay the king in latter days." [Jasher chapter 27 tells how Esau (Abraham's grandson) fulfills this prophecy.] Thus, I see Anuki's interpretation as symbolic of two things:

1) Nimrod's first death in the days to come (from that time).

2) Nimrod's coming second death in the latter days - those we call the Last Days.

Consider:

Woe to the idol shepherd that leaveth the flock! the sword shall be upon his arm, and upon his right eye: his arm shall be clean dried up, and his right eye shall be utterly darkened. - Zechariah 11:17 (KJV)

Remember what I wrote concerning Sargon (pictured right) from the last blog? I told you to keep his image in mind, because true to Nimrod's dream, he is now missing an eye! So, if the closing of the eye represents his death, we can now clearly "see" the other symbolic reference here.

Through the cult of Osiris, the "All Seeing - remaining - Eye" seems to indicate a return. This is further confirmed by the numerous tales and

iconography associated with Osiris - such as the Ankh and the Phoenix - both of which refer to resurrection. Again, Anuki said this would happen, "...in the latter days." Two eyes, two deaths! So, this seems to confirm our thesis concerning who the End Time Anti-Christ is. He is the one who "was, is not and yet shall be" - the first of the seven heads of the Beast John described in Revelation 17.

Tom Horn and Peter Goodgame also wrote extensively about this. Others are picking up on it as well...

Regarding Apollo, I have been seeing some interesting things at Target the past few X-mess seasons. For starters, the Target logo is the symbol of Apollo. They also have a "tool kit" line named Apollo Tools. Apollo Elementary School linked up with Target. But perhaps most interesting of all was the following product display. I took this picture while standing in the line for the check-out counter:

The Phoenix in Egypt was known as the Bennu, which was associated with the sun, creation and rebirth and specifically the resurrection of Osiris. Interestingly enough NASA has plans of using the OSIRIS-Rex probe to make contact with an asteroid known as the Bennu, which (oh yeah!) just so happened to have been discovered on September 11, 1999 (gotta love the Illuminati's code-language constantly being put out in plain sight). This is exceptionally interesting. The Bennu is said to live for 500 years, die and then rise again out of its own ashes (as the Phoenix).

NASA's OSIRIS-REx mission and The Planetary Society invited you to submit your name for a round-trip ride to asteroid Bennu. Your name will hitch a ride to the asteroid, spend 500 days there, and return in the Sample Return Capsule to Earth in 2023. --http://www.planetary.org/get-involved/messages/bennu/

OSIRIS-Rex is part of the New Frontiers Program of NASA. This caught my attention for two reasons:

1) New Frontiers Marketing and The New Frontier, Inc. were the names of the first two companies I created when I left the Army in 1993.

2) CERN also has a program called New Frontiers.

Now, granted, anytime we launch out into the exploration of new ideas and places we've not seen before, the term "new frontier" is a natural choice. But could it be that NASA and CERN are working together toward the same goal? A goal that directly relates to the numbers 9 and 11... as in Revelation 9:11? I think so! And while NASA does their part, CERN claims to have "the key" to the New Frontier:

This year, the Large Hadron Collider (LHC) will restart at the record collision energy of 13 TeV, following a two-year long shutdown (LS1) for planned maintenance. To mark this, today saw the LS1 activities coordinator symbolically handing over the LHC key to the operations team. The team will now perform tests on the machine in preparation for the restart this spring.

After three years of highly successful running, the LHC was shut down for maintenance in 2013. Since then, engineers and technicians have been repairing and strengthening the 27-kilometre accelerator in preparation for its restart at 13 TeV. Some 18 of the 1232 dipole magnets that steer particle beams around the accelerator were replaced, and more than 10,000 electrical interconnections between the magnets were strengthened. The LHC's vacuum, cryogenics and electronics systems were also consolidated.

"It's important to stress that after the long shutdown, the LHC is essentially a new machine," said CERN Director-General Rolf Heuer in his New Year address at CERN last week.—

--http://home.web.cern.ch/about/updates/2015/01/lhc-season-2-holding-key-new-frontiers

CERN has the key to the New Frontier? NASA's OSIRIS-Rex is going to be looking for "alien DNA" for 500 days on an asteroid named Bennu,

that just so happened to have been discovered on 9/11? Revelation 9:11 talks about the release of Apollo from the Bottomless Pit? Meh. Probably just a coincidence. I'm getting way ahead of myself anyway. We'll come back to CERN much later in this series.

In the meantime, go back and look at the above AXE Apollo/Phoenix display I saw at Target. AXE is often pitched as the cologne men need to attract women - even falling female angels:

Mythological History of the Sun

Apollo was associated with law, philosophy, and the arts. He sometimes gave the gift of prophecy to mortals whom he loved, such as the Trojan princess Cassandra. One of the most important Olympian gods, Apollo is the son of Zeus and Leto, and the twin brother of Artemis. He is considered the ideal of manly beauty, so that a very handsome man might be called an "Apollo." He is also the god of poetry and music. Apollo replaced the Titan Helios as the sun god; however, the Greeks didn't delete Helios completely but referred to both of them as the Sun gods. The arrows of Apollo and Artemis invariably killed and the Greeks explained epidemics of diseases by supposing that they were shooting their arrows at people; and so, by praying to Apollo, the epidemic might be made to stop. In this way, Apollo became associated with the cure of diseases. Such so-called cures led to a myth in which Apollo was thought to have had a son, Asclepius (as KLEP ee uhs), who is better known under the Roman version of the name, Aesculapius (es' kyoo LAY pee uhs).

He was a mortal medical healer who was so successful that he was reputed to have the ability to bring the dead back to life, which resulted in complaints by Hades. As a result, to keep peace in the godly family, Zeus killed him with a thunderbolt. After his death, Aesculapius became a god and he was also placed among the constellations, where he is pictured as a man holding a serpent in his hands.

The snake was a symbol of medicine and doctors and the Latin name for his constellation is Ophiuchus (oh fee YOO kuhs) which means "serpent-holder". (His symbol, the rod of Aesculapias, is not to be confused with the staff of Hermes, or the Caduceus. The rod of Aesculapias is a single rod with a single snake.

The Caduceus is a rod with two intertwined snakes and wings.) Sometimes the stars forming the serpent are referred to as a separate constellation called "Serpens" (serpent) and occasionally the whole constellation is referred to as "Serpentarius". Apollo became significant among the Romans when Augustus Caesar, as a young man, chose Apollo as his own god, and attributed his victory over Antony and Cleopatra to Apollo's superiority over monstrous Egyptian and oriental deities, whose cults appeared to him to be lascivious and orgiastic. At least one Roman writer, Horace in his Carmen Saeculare, expressed what Augustus thought of Apollo: "Governor of Roman destiny; master of the sun; archer; augur; averter of pestilence; and giver of sound morals to the young."

https://www.wyzant.com/resources/lessons/english/etymology/planets/apollo

Shortly after the blood moon eclipses of December 21, 2010, Ophiuchus was added as the 13th sign to the zodiac. Ophiuchus was known for raising Orion from the dead and emptying Hades. I dealt with all of this in my book, Babylon Rising: And The First Shall Be Last and in my blog, Seventy-Two and a Red Moon Rising and also in my video, The Omega Plan? below:

Without a doubt (at least in my mind), the story of Apollo is the story of Osiris. The story of Osiris is the story of Nimrod. Nimrod is the "mighty hunter" (Orion) who stood in defiance of YHWH, attempting to build a tower to "reach into heaven" in order to kill God and set up a "New World Order." I go into a lot of detail concerning all of this in my book, Babylon Rising: And The First Shall Be Last, so I won't go any further in trying to

explain it all here. Suffice it to say, I am more than convinced of these connections. Now, I'm seeing how it all may be playing into my current research regarding the Flat Earth Controversy. I will try to pull it all together in this new series of blogs dealing with Apollo. In the meantime, let's get back to Eratosthenes...

Modern science believes he may have accurately calculated the distance from the Earth to the Sun and invented the leap day. He created the first map of the world incorporating parallels and meridians, based on the available geographical knowledge of the era. Quite a guy, huh? But how did he do all of that? Well, apparently, he noticed the shadow on an obelisk in Egypt at one location was different from how it appeared at another location at the same time of day. One had almost no shadow, while the other had a long shadow. His conclusion was that the Earth must be a sphere and so with that preconceived notion, he did some math calculations to confirm that notion and determine how big the alleged sphere was. Listen to Carl Sagan tell the story...

That all seems reasonable enough, however, the same thing can be observed in the Flat Earth model. But, in the Flat Earth model, the sun is not millions of miles away. Rather it is much closer and way smaller than the standard model we've all been taught. With the smaller, moving sun inside the dome of an enclosed flat Earth, you still get the same exact results as those Eratosthenes observed. To confirm this, in a 3D program called Poser, I created a flat plain, with two obelisks and a point light with a limited throw:

I then moved that light from being over the top of one to being over the top of the other. Then I zoomed out and raised the camera high above the scene to show how day and night still works with this model as well. The point light only illuminates a specified area. The other areas remain in the dark. You can see my video here:

So, at least in my mind, the early Greek "meter stick" and obelisk experiment confirms one of at least two ideas at best. It is by no means conclusive. But there can be no doubt that Eratosthenes was the one who really "got the ball rolling" on this topic.

Obviously, when looking back through history, we can find a handful of ancient mathematicians and philosophers who kicked around the idea of a globe based on observations and conclusions similar to those of Pythagoras and Eratosthenes, but it never really caught on in mainstream thought until you get to Copernicus. Galileo, Kepler and Newton. Oddly enough, someone recently posted this pic to my Facebook wall as I was writing this blog:

The Freemasonic website known as MasonicDictionary.com says the following in the About Us section of the site:

The Masonic Dictionary has been designed to provide Freemasons with electronic access to information on Freemasonry from a variety of sources arranged alphabetically by subject matter. The purpose of the site is to assist Masons in understanding their fraternity and to provide those who would like to research the craft an opportunity to do so online.

This site claims to be the "go to" place for Freemasons. It has this to say about Pythagoras:

Pythagoras taught as the principal dogma of his philosophy the system of metempsychosis, or the transmigration of souls. He taught the mystical power of numbers, and much of the symbolism on that subject which we now passes is derived from what has been left to us by his disciples, for of his own writings there is nothing extant.

Disdaining the vanity and dogmatism of the ancient sages, he contented himself with proclaiming that he was simply a seeker after knowledge, not its possessor, and to him is attributed the introduction of the word philosopher, or lover of wisdom, as the only title which he would

assume. After the lawless destruction of his school at Crotona, he fled to the Locrians, who refused to receive him, when he repaired to Metapontum, and sought an asylum from his enemies in the temple of the Muses, where tradition says that he died of starvation at near the end of the sixth or the beginning of the fifth century. Some claim the date to be 506 B.C., when he was about seventy-six years old.

Shkollat e themeluara nga Pitagora në Crotona dhe qytete të tjera, janë konsideruar nga shumë shkrimtarë si modelet sipas të cilave u ndërtuan më pas Lozhat Masonike. Ata padyshim u shërbyen asketikëve të krishterë të shekullit të parë si model për institucionet e tyre monastike, me të cilat institucionet Frimasoneria e Mesjetës, në karakterin e saj operativ, ishte e lidhur ngushtë.

The mode of living in the school of Crotona was like that of the modern Communists. The Brethren, about six hundred in number, with their wives and children, resided in one large building. Every morning the business and duties of the day were arranged, and at night an account was rendered of the day's transactions. They arose before day to pay their devotions to the sun, and recited verses from Homer, Hesiod, or some other poet.

So, according to Freemasonry's own dictionaries and encyclopedias, their hero, Pythagoras was a sun worshiping pagan. He ended his life among the temple of the muses, who were directly linked to Apollo in the ancient writings of the Greeks. According to the website Greek-Gods.info, we can read:

The Creation of the Muses

The Muses were nine very intelligent, beautiful and careless divinities. Each Muse was responsible for a different literary or poetic genre. They were created by Zeus, the King of the Gods, who secretly laid for nine nights with Mnemosyne, the Titaness of memory.

The Role of the Muses and Apollo

The Muses were brought to life to make the world disremember the evil and relieve the sorrows and to praise the gods, and especially the Olympian Gods' victory over their ancestors, the Titans. Apollo was the main teacher of the Muses. They were usually accompanying him and the Graces on their strolls and loved singing and dancing on soft feet on laurel leaves, while Apollo was playing the lyre.

The Encyclopedia Britannica has this to say about Copernicus:

For a time Copernicus lived in the same house as the principal astronomer at the university, Domenico Maria de Novara (Latin: Domenicus Maria Novaria Ferrariensis; 1454–1504). Novara had the responsibility of issuing annual astrological prognostications for the city, forecasts that included all social groups but gave special attention to the fate of the Italian princes and their enemies. Copernicus, as is known from Rheticus, was "assistant and witness" to some of Novara's observations, and his involvement with the production of the annual forecasts means that he was intimately familiar with the practice of astrology.

In Copernicus's period, astrology and astronomy were considered subdivisions of a common subject called the "science of the stars," whose main aim was to provide a description of the arrangement of the heavens as well as the theoretical tools and tables of motions that would permit accurate construction of horoscopes and annual prognostications.

Although various biographies of Copernicus deny his support of "fortune telling astrology" others suggest he was an avid reader of the writings of Pythagoras among others.

Copernicus was developing new ideas inspired by reading the "Epitome of the Almagest" (Epitome in Almagestum Ptolemei) by George von Peuerbach and Johannes Regiomontanus (Venice, 1496). He verified its observations about certain peculiarities in Ptolemy's theory of the Moon's

motion, by conducting on 9 March 1497 at Bologna a memorable observation of the occultation of Aldebaran, the brightest star in the Taurus constellation, by the moon. Copernicus the humanist sought confirmation for his growing doubts through close reading of Greek and Latin authors (Pythagoras, Aristarchos of Samos, Cleomedes, Cicero, Pliny the Elder, Plutarch, Philolaus,

Heraclides, Ecphantos, Plato), gathering, especially while at Padua, fragmentary historic information about ancient astronomical, cosmological and calendar systems.

While nothing I read about Copernicus led me to believe he was ever a Freemason or that he received his "revelation" of heliocentricity from Apollo, the fact remains, he was certainly influenced by the writings of those who did worship the sun god Apollo. Admittedly however, this is only circumstantial evidence at best and nothing worthy of condemning the man as being a follower of Apollo himself. And him being pictured with a compass and square in the above picture doesn't automatically make him (or any of the others) a Freemason either. I've used a compass and square plenty of times myself and I am not, nor is anyone in my immediate family a Freemason. It is however interesting how much the Freemasons do love Copernicus and in fact have lodges named in his honor (such as Lodge Copernicus No. 246 and Lodge Copernicus No. 505 and Poland's Mother Lodge "Kopernik" among others). So, perhaps he is "guilty by association?"

The Galileo Affair

In the Catholic world prior to Galileo's conflict with the Church, the majority of educated people subscribed to the Aristotelian geocentric view that the Earth was the center of the universe and that all heavenly bodies revolved around the Earth, despite the use of Copernican theories to reform the calendar in 1582. Biblical references Psalm 93:1, 96:10, and 1 Chronicles16:30 include text stating that "the world is firmly established, it

cannot be moved." In the same manner, Psalm 104:5 says, "the Lord set the Earth on its foundations; it can never be moved." Further, Ecclesiastes 1:5 states that "And the sun rises and sets and returns to its place."

Galileo defended heliocentrism, and in his Letter to the Grand Duchess Christina argued that it was not contrary to biblical texts. He took the Augustinian position that poetry, songs, instructions or historical statements in biblical texts need not always be interpreted literally. Galileo argued that the authors wrote from the perspective of the terrestrial world in which the sun does rise and set, and discussed a different kind of "movement" of the Earth, not rotations.

By 1615 Galileo's writings on heliocentrism had been submitted to the Roman Inquisition, and his efforts to interpret the Bible were seen as a violation of the Council of Trent.. Attacks on the ideas of Copernicus had reached a head, and Galileo went to Rome to defend himself and Copernican ideas. In 1616, an Inquisitorial commission unanimously declared heliocentrism to be "foolish and absurd in philosophy, and formally heretical since it explicitly contradicts in many places the sense of Holy Scripture." The Inquisition found that the idea of the Earth's movement "receives the same judgement in philosophy and in regard to theological truth it is at least erroneous in faith.". (The original document from the Inquisitorial commission was made widely available in 2014.)

Pope Paul V instructed Cardinal Bellarmine to deliver this finding to Galileo, and to order him to abandon the Copernican opinions. On 26 February, Galileo was called to Bellarmine's residence and ordered to abandon completely the opinion that the sun stands still at the center of the world and the Earth moves, and henceforth not to hold, teach, or defend it in any way whatever, either orally or in writing.

The decree of the Congregation of the Index banned Copernicus's De Revolutionibus and other heliocentric works until correction. Bellarmine's

instructions did not prohibit Galileo from discussing heliocentrism as a mathematical fiction.

While I am not by any means a supporter of the Catholic Church, I will say they stood firm on the text of Scripture concerning this issue. My own studies have shown that Scripture in no way supports a model of the Earth as a spinning globe, orbiting around the sun.

As with my research on Copernicus, I really didn't find a whole lot of confirming evidence that would lead me to a firm conclusion that Galileo was a Freemason or that he served the Greek god Apollo. He seems to me to have simply been a man of science who challenged the status quo - interestingly enough, right around the time of the publishing of the King James Bible, which does not in any way support a spinning globe, orbiting around the sun. Still, it is obvious Galileo was picking up where Copernicus left off, who himself seemed to have been influenced by Pythagoras, who was influenced by Apollo. The same is true of Kepler. Indeed, that was the mode of that era:

European learning was based on the Greek sources that had been passed down, and cosmological and astronomical thought were based on Aristotle and Ptolemy. Aristotle's cosmology of a central Earth surrounded by concentric spherical shells carrying the planets and fixed stars was the basis of European thought from the 12th century CE onward. Technical astronomy, also geocentric, was based on the constructions of eccentric circles and epicycles codified in Ptolemy's Almagest (2d. century CE).

From this, we may see the fact that they had a variety of ideas to choose from, all originating with ancient Greek sources, some of which came to conflicting conclusions based on differing ideas and points of view. These later men of science thus had to wrestle with these things and through their own observations and testing, came up with new theories, based on their

findings, which were derived from better instruments than what the ancients had to work with when coming up with their theories.

Still, perhaps unlike Galileo, it would seem that Kepler was influenced by ideas concerning the Greek god Apollo.

In 1594 Kepler accepted an appointment as professor of mathematics at the Protestant seminary in Graz (in the Austrian province of Styria). He was also appointed district mathematician and calendar maker. Kepler remained in Graz until 1600, when all Protestants were forced to convert to Catholicism or leave the province, as part of Counter Reformation measures. For six years, Kepler taught arithmetic, geometry (when there were interested students), Virgil, and rhetoric. In his spare time he pursued his private studies in astronomy and astrology.

According to The Galileo Project website, Kepler taught Virgil for six years, while studying astrology in his spare time. This caught my attention because of some of the things I had written in Chapter 4 of my book, Babylon Rising: And The First Shall Be Last. In that chapter, I show how Virgil also had a heavy influence on a man by the name of Charles Thomson. He's the guy who worked on the Great Seal of the United States. Now go grab a U.S. one dollar bill, flip it over and read the motto, Novus Ordo Seclorum under the pyramid. That Latin phrase was taken from a line in the following poem by Virgil.

Muses of Sicily, let me sing a little more grandly...Now the last age of the Cumaean prophecy begins: the great roll-call of the centuries is born anew: now Virgin Justice returns, returns old Saturn's reign, With a new breed of men sent down from heaven. Only favor the child who's born, pure Lucina, under whom the first race of iron shall end, and a golden race rise up throughout the world: now your Apollo reigns.

He will take on divine life, and he will see gods mingled with heroes, and be seen by them, and rule a peaceful world with his father's powers. O

dear child of the gods, take up your high honors (the time is near), great son of Jupiter! See the world, with its weighty dome, bowing, Earth and wide sea and deep heavens: see how everything delights in the future age!

— Excerpts from Virgil's Eclogue IV: The Golden Age

The original Latin phrase translated into English as, "The great roll-call of the centuries is born [or begins] anew." in the first paragraph is: "Magnus ab integro seclorum nascitur ordo". Thomson shortened this phrase to Novus Ordo Seclorum, which means, "A New Order of the Ages," and placed it below the Great Pyramid on the Great Seal.

The phrase, Annuit Coeptus above the pyramid means "favors undertakings." It is an incomplete statement, thus the subject must be supplied. Who is the one favoring and what undertakings are being favored? The iconography must be taken as a whole. Therefore, the meaning and answer to those questions is in the Great Seal itself. The "Eye of Providence" that sits hovering over the pyramid and between Annuit and Coeptus is better known as the "All-Seeing-Eye" of Horus-Osiris-Nimrod, and it serves as the best candidate for answering the question of "who" we are talking about here.

However, if we were to take it a step further and consider what (or who) "inspired" Charles Thomson to use this phrase, we must again look to his favorite poet, Virgil.

In Book IX of Virgil's Aeneid, we find the Latin phrase, "Audacibus annue coeptis." Essentially, it means, "Grant me success in this brave venture." It is a prayer. To whom is the subject (in this case, Ascanius) praying? He is praying to his god, Jupiter/Zeus, asking him for victory in his battle against Remulus.

"All-powerful Jupiter, assent to my bold attempt. I myself will bring gifts each year to your temple, and I'll place before your altar a snow-white

bullock with gilded forehead, carrying his head as high as his mother, already butting with his horns, and scattering sand with his hooves."

— Excerpt from Virgil's Aeneid, Book IX

Note how we have Roman, Greek, Egyptian and Babylonian themes all on one "cypher" on the back of our currency. We must acknowledge that there is a great deal of information encoded in the symbols of our nation's Great Seal — all of which is hidden in plain sight. Thus, we must be made aware that the "IN GOD WE TRUST" is not the God of Abraham, Isaac and Jacob, but rather the god(s) of the ancient, pagan world! Both Thomson and Kepler taught and were influenced by Virgil.

Kepler's teacher in the mathematical subjects was Michael Maestlin (1550-1635). Maestlin was one of the earliest astronomers to subscribe to Copernicus's heliocentric theory, although in his university lectures he taught only the Ptolemaic system. Only in what we might call graduate seminars did he acquaint his students, among whom was Kepler, with the technical details of the Copernican system. Kepler stated later that at this time he became a Copernican for "physical or, if you prefer, metaphysical reasons."

In 1610 Kepler heard and read about Galileo's discoveries with the spyglass. He quickly composed a long letter of support which he published asDissertatio cum Nuncio Sidereo ("Conversation with the Sidereal Messenger"), and when, later that year, he obtained the use of a suitable telescope, he published his observations of Jupiter's satellites under the title Narratio de Observatis Quatuor Jovis Satellitibus ("Narration about Four Satellites of Jupiter observed"). These tracts were an enormous support to Galileo, whose discoveries were doubted or denied by many. Both of Kepler's tracts were quickly reprinted in Florence. Kepler went on to provide the beginning of a theory of the telescope in his Dioptrice, published in 1611.

So, here we have Kepler reading Virgil. Virgil talks about praying to Jupiter and the rise of Apollo's reign on Earth. Then, after observing Jupiter,

Kepler becomes a supporter of Galileo, for "metaphysical reasons," leading to him publishing the beginning of his theories the same year as the King James Bible comes out, which absolutely does not support what these men are proposing. Call me crazy and perhaps all of that means nothing, but I just find the timing and circumstances surrounding of all of this quite interesting.

Finally, we have Sir Isaac Newton. For a long time, I had considered him to have been brilliant scientist and an amazing Christian man of God. Now, I am not so sure... about the latter. I won't say this with any measure of certainty, but it may be that just like many of our so-called American Founding Fathers, he was just another one of these incredibly intelligent guys who knew the Christian lingo, knew the Bible, but had a secret life wrapped around occult beliefs and activities. There certainly does appear to be a variety of on-line articles books coming out these days that would seem to support that idea.

Isaac Newton produced many works that would now be classified as occult studies. These works explored chronology, alchemy, and Biblical interpretation (especially of the Apocalypse). Newton's scientific work may have been of lesser personal importance to him, as he placed emphasis on rediscovering the occult wisdom of the ancients. In this sense, some believe that any reference to a "Newtonian Worldview" as being purely mechanical in nature is somewhat inaccurate.

After purchasing and studying Newton's alchemical works in 1942, economist John Maynard Keynes, for example, opined that "Newton was not the first of the age of reason, he was the last of the magicians". In the Early Modern Period of Newton's lifetime, the educated embraced a world view different from that of later centuries. Distinctions between science, superstition, and pseudoscience were still being formulated, and a devoutly Christian Biblical perspective permeated Western culture.

Newton And Secret Societies

Isaac Newton has often been associated with various secret societies and fraternal orders throughout history. Due to the secretive nature of such organizations, lack of supportive publicized material, and dubious motives for claiming Newton's participation in these groups, it is difficult to establish his actual membership in any specific organization.

Pavarësisht nga statusi i tij i anëtarësimit, Njutoni ishte një bashkëpunëtor i njohur i shumë individëve të cilët vetë shpesh janë etiketuar si anëtarë të grupeve të ndryshme ezoterike. Është e paqartë nëse këto shoqata ishin rezultat i të qenit i tij një studiues i njohur dhe i njohur në mënyrë të dukshme, një anëtar i hershëm dhe President në detyrë i Shoqërisë Mbretërore (1703-1727), një figurë e shquar e shtetit dhe Mjeshtër i Mint, një i njohur Knight, ose nëse Njutoni në të vërtetë kërkonte vetë anëtarësim aktiv brenda këtyre organizatave ezoterike. Duke marrë parasysh natyrën dhe ligjshmërinë e praktikave alkimike gjatë jetës së tij, si dhe posedimin e materialeve dhe dorëshkrimeve të ndryshme që kanë të bëjnë me kërkimin alkimik, Njutoni mund të ketë qenë shumë mirë një anëtar i një grupi mendimtarësh dhe kolegësh me të njëjtin mendim. Niveli i organizuar i këtij grupi (nëse ka ekzistuar në fakt), niveli i fshehtësisë së tyre, si dhe thellësia e përfshirjes së Njutonit brenda tyre, mbeten të paqarta.

Though Newton was largely considered a reclusive personality and not prone to socializing, during his lifetime being a member of "Societies" or "Clubs" was a very popular form of interpersonal networking. Considering his esteemed social status, it is probable that Newton would have had a least some contact with such groups at various levels. He was most certainly a member of The Royal Society of London for the Conferment of Natural Knowledge and the Spalding Gentlemen's Society, however, these are considered learned societies, not esoteric societies. Newton's membership status within any particular secret society remains verifiably allusive and largely speculative, however, it still lends itself to popular sensationalism.

Newton and The Rosicrucians

Perhaps the movement which most influenced Isaac Newton was Rosicrucianism. Though the Rosicrucian movement had caused a great deal of excitement within Europe's scholarly community during the early seventeenth century, by the time Newton had reached maturity the movement had become less sensationalized. However, the Rosicrucian movement still would have a profound influence upon Newton, particularly in regard to his alchemical work and philosophical thought.

The Rosicrucian belief in being specially chosen for the ability to communicate with angels or spirits is echoed in Newton's prophetic beliefs. Additionally, the Rosicrucians proclaimed to have the ability to live forever through the use of the elixir vitae and the ability to produce limitless amounts of time and gold from the use of The Philosopher's Stone, which they claimed to have in their possession. Like Newton, the Rosicrucians were deeply religious, avowedly Christian, anti-Catholic, and highly politicized. Isaac Newton would have a deep interest in not just their alchemical pursuits, but also their belief in esoteric truths of the ancient past and the belief in enlightened individuals with the ability to gain insight into nature, the physical universe, and the spiritual realm.

At the time of his death, Isaac Newton had 169 books on the topic of alchemy in his personal library, and was believed to have considerably more books on this topic during his Cambridge years, though he may have sold them before moving to London in 1696. For its time, his was considered one of the finest alchemical libraries in the world. In his library, Newton left behind a heavily annotated personal copy of The Fame and Confession of the Fraternity R.C., by Thomas Vaughan which represents an English translation of The Rosicrucian Manifestos. Newton also possessed copies of Themis Aurea and Symbola Aurea Mensae Duodecium by the learned alchemist Michael Maier, both of which are significant early books about the

Rosicrucian movement. These books were also extensively annotated by Newton.

Newton's ownership of these materials by no means denotes membership within any early Rosicrucian order. Furthermore, considering that his personal alchemical investigations were focused upon discovering materials which the Rosicrucians professed to already be in possession of long before he was born, would seem to some to exclude Newton from their membership. However, in religious terms, the fact that a saint might have 'found God' would not preclude others from the search — quite the opposite. The Ancient & Mystical Order Rosae Crucis has always claimed Newton as a frater. During his own life, Newton was openly 'accused' of being a Rosicrucian, as were many members of The Royal Society.[30] Though it is not known for sure if Isaac Newton was in fact a Rosicrucian, and he never publicly identified himself as one, from his writings it does appear that he may have shared many of their sentiments and beliefs.

Loup Verlet writes of the conditions of the "miraculous" discovery of Newton's unpublished manuscripts. Put in a stack in 1696 when he was leaving the directorship of the mint in London, they escaped the burning of his personal documents arranged just after his death. They were discovered two centuries later and put up at auction in 1936. John Maynard Keynes won the manuscripts and revealed that Newton was not only the "first physicist" but also the "last magician." The haul included several alchemical works, the bulk of them now at Cambridge, some at the University of Jerusalem, and others in private collections. According to Verlet, Newton's known work comprises 1.4 million words relating to theology, 550,000 on alchemy, 150,000 on monetary affairs, and one million on scientific problems.

Verlet considers Newton, from a scientific point of view, to have been a coincidence. If he had not lived, the development of the sciences would surely have been delayed, and the work begun by Galileo and Descartes would have been slowed down. But by hiding his secrets away, Newton the

magus also hid the alchemical, Hermetic, and esoteric dimensions which elucidated his research. From this point of view, victorious Science made its complex matrix disappear.

Isabelle Stengers writes that Newton affirmed: "I do not feign hypotheses, I stick to phenomena." This did not hinder his speculative theories, and placed him in contrast with the "contemplative" Galileo.

In 1669, according to Richard Westfall, Newton immersed himself in alchemical literature. Betty Jo Teeter Dobbs affirms that "Newton read virtually everything alchemical that had ever been published, and a good many things that had not." Numerous manuscripts from Hartlib's circle were copied by Newton himself. His friend Robert Boyle served him as a link to other circles of Rosicrucians and alchemists. Elias Ashmole did the same in writing his Theatrum Chemicum Britannicum (published in 1652).

Newton even devised an anagram of his name as a pseudonym (Isaacus Neuutonus becoming Jeova sanctus unus), which allowed him to exchange manuscripts with his correspondents while remaining anonymous, despite widespread speculation. In Newton's personal archives, a great many manuscripts have been found with lengthy annotations: Philalethes' Secrets Reveal'd from 1669, Sendivogius' Novum Lumen Chymicum, Espagnet's Arcanum hermeticae philosophiae, Maier's Symbola aureae mensae duodecim, the Opera of George Ripley (the great English alchemist), Basil Valentine's Triumphal Chariot of Antimony. Most of these are preserved at the Hebrew University of Jerusalem.

What does all of this have to do with the Flat Earth Controversy? The main thing I want you to get out of the above is how much the occult, Freemasonry and specifically the worship of and/or other associations with Apollo always seem to pop up where the subject of the globe is concerned. These Apollo/sun god worshippers and believers in heliocentricity caused

many to either question, totally rethink and/or toss out what the Scriptures actually say concerning the Earth and its place in the cosmos.

-- Rob Skiba, 2015, http://testingtheglobe.com/apollo1.html

Send in The Clowns: Albert Einstein

Relativiteti Special u krijua nga Ajnshtajni për të shpjeguar Eksperimentin Michelson-Morley të vitit 1887, i cili konfirmoi se Toka nuk po lëviz në një orbitë rreth Diellit.

Eteri ndriçues

Luminiferous Aether or ether ("luminiferous", meaning "light-bearing") was the postulated medium for the propagation of light. It was invoked to explain the ability of the apparently wave-based light to propagate through empty space (a vacuum), something that waves should not be able to do. The assumption of a spatial plenum of luminiferous Aether, rather than a spatial vacuum, provided the theoretical medium that was required by wave theories of light.

The Aether hypothesis was the topic of considerable debate throughout its history, as it required the existence of an invisible and infinite material with no interaction with physical objects. As the nature of light was explored, especially in the 19th century, the physical qualities required of an Aether became increasingly contradictory. By the late 1800s, the existence of the Aether was being questioned, although there was no physical theory to replace it.

The negative outcome of the Michelson–Morley experiment (1887) suggested that the Aether did not exist, a finding that was confirmed in subsequent experiments through the 1920s. This led to considerable theoretical work to explain the propagation of light without an Aether. A major breakthrough was the theory of relativity, which could explain why the experiment failed to see Aether, but was more broadly interpreted to suggest that it was not needed.

The Michelson-Morley experiment, along with the blackbody radiator and photoelectric effect, was a key experiment in the development of modern physics, which includes both relativity and quantum theory, the latter of which explains the particle-like nature of light.

The 1887 Michelson-Morley Experiment: Refuting Neil de Grasse Tyson's View of Einsteinian Relativity

Tyson says Relativity assumes two things:

1) speed of light is constant in a vacuum for all observers, regardless of their motion, and

2) the laws of physics are the same for all observers.

He admits these are "assumptions" that one "has to buy into."

What is behind Tyson's claim?

First, that light can travel without a medium. To Tyson, a vacuum is nothingness. Light has the ability (in Relativity theory) to travel in waves without a medium to make the waves. Essentially, Special Relativity theory claims that light makes its own waves, but it does not explain how this happens.

Before we proceed, there are two important things to know about Einstein's Relativity theories in general:

1) Special Relativity [SRT], invented in 1905, took away the Aether that was previously the accepted medium for light propagation in the 1800s (including Maxwell's equations in 1865), and left a "nothingness" vacuum, which went by the name of "spacetime," but for which no physical

description was forthcoming, only a mathematical equation (x2 + y2 + z2 – c2t2), which is essentially Descartes' matrix with time added as a fourth dimension.

2) General Relativity [GRT], invented in 1915, took back the Aether precisely for light propagation in a medium, which Einstein admitted in his 1920 Leyden paper, saying: "Recapitulating, we may say that according to the general theory of relativity, space is endowed with physical qualities; in this sense, therefore, there exists an ether. According to the general theory of relativity space without ether is unthinkable; for in such space there not only would be no propagation of light, but also no possibility of existence for standards of space and time (measuring-rods and clocks), nor therefore any space-time intervals in the physical sense."1

So, basically, the two theories contradict one another in regards to the existence of Aether. Einstein tried to mollify the contradiction by claiming: "But this ether may not be thought of as endowed with the quality characteristic of ponderable media, as consisting of parts which may be tracked through time. The idea of motion may not be applied to it."2 What Einstein is referring to is that Hendrick Lorentz's version of Aether was always in motion. For example, Lorentz claimed that the Aether rotated with the Earth.

1. Other und Relativitätstheorie. Rede gehalten am 5. Mai 1920 an der Reichs-Universität zu Leiden. Berlin: Springer, 1920 [Vol. 7, Doc. 38, 305–323; trans. 160–182]; http://en.wikisource.org/wiki/Ether_and_the_Theory_of_Relativity. 2 Ibid.

2. Einstein wanted Aether, but Aether that was motionless and therefore could not be tracked in time, which would essentially be an "imponderable" or "immaterial" Aether.

So, the first thing we would refute is Tyson's claim that light is constant in a vacuum. For what is a vacuum? Does it have Aether or not? Relativity gives us two different answers. SRT says there is no Aether; GRT says there is. Here's why it is important: If light moves through Aether and

the Aether moves while the light is propagating through it, what is the true speed of the light with respect to the observer? It would be c + speed of the Aether, or c + v = true c.

Now we can see why Einstein didn't want his Aether to move. If it moved, then c + v would be the reality. But since Einstein wanted c to be constant, he said his revived Aether could not move (although he never gave a physical explanation of what that particular Aether was composed of or why it couldn't move).

Why didn't Einstein want Aether for Special Relativity? Because it was the only thing he had to answer the 1887 Michelson-Morley experiment [MMX]. Based on the behavior of light in a medium, MMX said that a light beam discharged in the direction of the Earth's presumed movement around the sun through the medium should affect the light beam. That is, since the Earth was moving 66,000 mph through the Aether as it revolved around the sun, the light beam should decrease from its normal speed, c. Since MMX did not show the required decrease in speed (NB: it only showed one tenth of what was required if the Earth was moving around the sun), science was in a quandary how to explain this? There were three choices. The three are recorded in a biography of Einstein:

"The problem which now faced science was consider-able. For there seemed to be only three alternatives. The first was that the Earth was standing still, which meant scuttling the whole Copernican theory and was unthinkable. The second was that ether was carried along by the Earth in its passage through space….The third solution was that the ether simply did not exist, which to many nineteenth century scientists was equivalent to scrapping current views of light, electricity, and magnetism, and starting again."3

Notice that one of the solutions was Earth was not moving around the sun, but it was "unthinkable."

Einstein picked the "third solution," which claimed that the Aether did not exist, and therefore there could be no significant effect on the light beam discharged in the direction of the Earth's presumed motion around the sun. (Incidentally, the one-tenth of Aether presence measured by MMX Einstein chalked up to "experimental error").

Prior to Einstein taking Door #3, however, was Hendrik Lorentz's taking Door #2 in 1892 but with the added feature that the Aether through which the Earth traveled as it went around the sun put pressure on the MMX experimental apparatus and made it shrink. It ended up being called "the Lorentz Contraction" and was then put into an equation: The New Length = The Old Length × √1 – v2/c2,

which was called the "Lorentz Transformation" equation. As Lorentz explained it, the Aether pressure shrunk the apparatus just enough to make it appear as if "the Earth was standing still."

But Einstein, although stuck with the notion that the MMX apparatus had to shrink (since there was no other way to make it appear the Earth was moving when, in fact, MMX showed it wasn't moving), didn't like Lorentz's cause for the shrinking. One of the main reasons was that prior to MMX Aether was known to be a frictionless substance that could not put pressure on material objects so as to shrink them.4

So Einstein's solution was to assume the Aether did not exist and claim that the MMX apparatus shrunk not because of friction but because of the "principle of relative motion." In other words, when an object moves it shrinks due to a mysterious phenomenon of nature, as yet unexplained by Einstein or his followers to this very day. Einstein then used the same equation as Lorentz to measure the shrinkage, namely, The New Length = The Old Length × √1 – v2/c2.

At that time, Einstein was accused by various philosophers of violating the philosophical foundation of 'cause and effect.' But since there was really

no other answer (except Lorentz's contradictory Aether theory) to MMX's finding that the Earth was "standing still," modern science was stuck with Einstein's Door #3, and Einstein became world famous.

In essence, Einstein had two choices to answer MMX:

(1) he could say the Earth was constant (i.e., not moving). (2) he could say light is constant (since he dispensed with the Aether to affect it)

He chose #2 because, well, #1 was "unthinkable." But in choosing #2, it created a whole new set of problems. The first was the 'cause and effect' violation. The second was length contraction, since no one had ever physically measured one. It was all theory with no substance.

The third was that if one makes light constant, which then requires length contraction, it will also require time dilation. For if an object is traveling from point A to point B and its length is contracted while moving to point B, then the object will not reach point B in the same time it would have reached point B if the object had not been contracted. To solve this problem, Einstein was required to dilate (increase) the time that the object is allowed to reach point B. The increase in time was calculated by the same equation that length was contracted, namely, The New Time = The Old Time × $1/\sqrt{1 - v2/c2}$.

Einstein writes: "Guided by purely formal points of view, H. A. Lorentz was the first to introduce the hypothesis that the form the electron experiences a contraction in the direction of motion in consequence of that motion, the contracted length being proportional to the expression $\sqrt{(1 - v^2/c^2)}$. This hypothesis, which is not justifiable by any electrodynamical facts, supplies us then with that particular law of motion which has been confirmed with great precision in recent years." (Relativity: The Special and the General Theory, p. 57). The other reason Einstein didn't want Lorentz's Aether was that he was trying to find a solution to Maxwell's equations wherein he could reduce Maxwell's two equations for a magnet moving with respect to an electric charges into one equation. Einstein believed that if he

set aside Maxwell's Aether, he could reduce the two equations to one equation.

NB: You will notice that the equation for time dilation is $1/\sqrt{1} - v2/c2$ instead of $\sqrt{1} - v2/c2$. This is because it all depends from what source one measures the change in time. If you measure it from the moving object's reference frame, the time is contracted. If you measure it from the finish line, point B's perspective, the time is dilated. Hence, if you use time dilation you must put the contraction formula in the denominator, under 1. If you use the contracted time, you make the contraction formula the nominator.

But the distortion of time created all kinds of paradoxes in Relativity theory (e.g., the twin paradox that Tyson tries to explain in the rest of his four minute video) that, to this day, have not been explained by Relativists to anyone's satisfaction.

The fourth was that if an object moves from point A to point B and its length is contracted, then the same amount of mass will not cross point B as it would if the length had not been contracted. Thus Einstein had to increase the mass of the object, and did so by the same equation he increased time, namely, The New Mass = The Old Mass $\times 1/\sqrt{1} - v2/c2$.

Essentially, in order to keep the Earth moving when, in fact, MMX showed it wasn't moving, and in order to declare the corollary point that light was constant in speed, Einstein had to revamp all of physics, and he did so by making length, time, and mass changeable, and by declaring that the change in all three had no direct physical cause other than "relative motion." But neither Einstein nor his colleagues ever explained how "relative motion" could change physical dimensions like length and mass or abstract dimensions like time.

The simpler solution, of course, was to admit that Earth wasn't moving and that light was, indeed, affected by Aether, but that solution was "unthinkable."

But, as we saw earlier, Einstein got caught having to take back in 1915 the very Aether he rejected in 1905, but this contradiction was glossed over in the media as if it never happened. This was demonstrated no better than in the headlines of the New York Times on January 25, 1925 as it commented on the next experiment Michelson did with Henry Gale in 1925 [MGX]. This time, instead of trying to measure if the Earth was revolving around the sun, Michelson set up his apparatus to measure the Earth's rotation, and he used the same principle of a ether's retardation of light speed that he had used in 1887.

The results in 1925 were very different than in 1887. Michelson found 98% of a relative rotation between the Earth and space in his 1925 experiment, while his 1887 experiment found, at most, only 10% of an Earth revolving around the sun. These results meant, of course, that Aether existed, but that it only showed a rotation of the Earth but not a revolution of the Earth around the sun (which is perfect for geocentrism, since it only needs to show a relative sidereal rotation between Earth and space).

Here is how the New York Times explained the results.

The headline reads:

"Michelson Confirms Einstein Theory: Experiments Conducted with 5200-Foot Vacuum Tube Show Light Displacement: Ether Drift is Confirmed: Rays Found to Travel at Different Speeds When Sent in Opposite Directions."

In the body of the article it says:

The register in the flight of these beams was an instrument known as the interferometer, which Professor Michelson has been perfecting for forty years. Through it was visible a white circle striped with vertical find lines like hair drawn tightly across the face of an oval mirror. These were called interference fringes due to the fact that if the beams reached home at

different times it would be recorded by a displacement of these lines. This displacement was shown in the experiment.'

Clearly, the article admits that: (1) Michelson found the Aether drift he had been looking for and (2) light was found to "travel at different speeds," yet no one at the New York Times or anywhere else in the world admits that both of these discoveries falsified Einstein's Special Theory of Relativity, which theory claimed that there was no Aether and that light never traveled at different speeds! Instead, the headline says: "Michelson Confirms Einstein Theory," which was a bald-faced lie.

Of course, the fact that Einstein had taken back an Aether for his 1915 General Theory of Relativity would be of no help here in 1925 for, as we saw, Einstein's 1915 Aether was "immaterial" and "could not be tracked by time." But the 1925 MGX found a "material" Aether, and did so by "tracking it in time," which produced significant "interference fringes" in his apparatus. In case you can't believe your eyes, the GWW DVD shows the actual article from 1925:

1:09: Tyson claims "all experiments have shown those two tenets are correct."

R. Sungenis: Not so. No one has ever measured length contraction, ever. In fact, there are a number of theories of how to explain length contraction.5

Let's look at one of the claims made for "time dilation." It is claimed that muons or mesons from outer space have such a short half-life that they should not be able to hit the Earth's surface, yet we find various muons and mesons hitting the Earth's surface. Special Relativity [SRT] claims that this confirms "time dilation," that is, the life of the muon or meson is dilated by The New Time = The Old Time × $1/\sqrt{1 - v2/c2}$. But what the Relativists conveniently forget is that SRT must also include length contraction, since it is required by the theory to occur every time there is a time dilation. If length

contraction is added, then the length the muon or meson has to travel must be shortened by the same ratio as the time dilation, and therefore it is a wash. As such SRT has no explanation for why muons or mesons hit the Earth.

Let's look at one of the claims made for "mass increase." It is claimed that when a proton is accelerated in a cyclotron, it gains mass, and this gain has been measured. Granted, they have measured something, but

1) "The contraction is real." Lorentz stated in 1922 that the "contraction could be photographed" (Lectures on Theoretical Physics, Vol. 3, Macmillan, p. 203); C. Møller writes: "Contraction is a real effect observable in principle by experiment…This means the concept of length has lost its absolute meaning" (Møller, The Theory of Relativity, 1972, p. 44); Wolfgang Pauli: "It therefore follows that the Lorentz contraction is not a property of a single rod taken by itself, but a reciprocal relation between two such rods moving relatively to each other, and this relation is in principle observable" (The Theory of Relativity, Dover Publications, 1958, pp. 12-13); R. C. Tolman: "Entirely real but symmetrical" (Relativity Thermodynamics and Cosmology, pp. 23-24).

2) "The contraction is not real." E. F. Taylor and John Wheeler write: "Does something about a clock really change when it moves, resulting in the observed change in the tick rate? Absolutely not!" (Spacetime Physics: Introduction to Special Relativity, p. 76).

3) "The contraction is only apparent." Aharoni writes: "The moving rod appears shorter. The moving clock appears to go slow" (The Special Theory of Relativity, p. 21); McCrea writes: "The apparent length is reduced. Time intervals appear to be lengthened; clocks appear to go slow" (Relativity Physics, pp. 15-16); Nunn: "A moving rod would appear to be shortened" (Relativity and Gravitation, pp. 43-44); Whitrow: "Instead of assuming that there are real, i.e., structural changes in length and duration owing to motion,

Einstein's theory involves only apparent changes" (The Natural Philosophy of Time, p. 255).

4) "The contraction is the result of the relativity of simultaneity." Bohn writes: "When measuring lengths and intervals, observers are not referring to the same events" (The Special Theory of Relativity, p. 59). See also William Rosser, Introductory Relativity, p. 37; and A. P. French, Special Relativity, p. 97; and Stephenson and Kilmister, Special Relativity for Physicists, pp. 38-39.

(5) "The contraction is due to perspective effects." Rindler writes: "Moving lengths are reduced, a kind of perspective effect. But of course nothing has happened to the rod itself. Nevertheless, contraction is no illusion, it is real" (Introduction to Special Relativity, p. 25).

6) "The contraction is mathematical." Herman Minkowski writes: "This hypothesis sounds extremely fantastical, for the contraction is not to be looked upon as a consequence of resistances in the ether, or anything of that kind, but simply as a gift from above, – as an accompanying circumstance of the circumstance of motion" ("Space and Time," in The Principle of Relativity: A Collection of Original Memoirs on the Special and General Theory of Relativity by H. A. Lorentz, A. Einstein, H. Minkowski and H. Weyl, translated by W. Perrett and G. B. Jeffery from the original 1923 edition, Dover Publications, 1952, p. 81).

7) "The contraction is real but invisible." James Terrell writes: "…the Lorentz contraction will not be visible, although correction for the finite velocity of light will reveal it to be present" ("Invisibility of the Lorentz Contraction," Physical Review, Vol. 116, No. 4, Nov. 15, 1959, p. 1041).

8) "The contraction is real and not real": Einstein writes: "The author unjustly posited a distinction between Lorenz's conception and my own with regard to the physical facts. The question of whether the Lorenz contraction really exists or not is deceptive. It doesn't 'really' exist insofar as it doesn't exist for a non-moving observer; it does 'really' exist, in that it can be

confirmed principally through physical means for a non-moving observer" ("Zum Ehrenfestschen Paradoxon. Eine Bemerkung zu V. Variĉaks Aufsatz." Physikalische Zeitschrift 12: 509-510.; Original German: "Der Verfasser hat mit Unrecht einen Unterschied der Lorentzschen Auffassung von der meinigen mit Bezug auf die physikalischen Tatsachen statuiert. Die Frage, ob die LorentzVerkürzung wirklich besteht oder nicht, ist irreführend. Sie besteht nämlich nicht 'wirklich,' insofern sie für einen mitbewegten Beobachter nicht existiert; sie besteht aber 'irklich,' d. h. in solcher Weise, daß sie prinzipiell durch physikalische Mittel nachgewiesen werden könnte, für einen nicht mitbewegten Beobachter.")

It isn't necessarily mass. What they actually do in the "measurement" is note how much more energy is present on the proton when it is accelerated. They then convert this energy to mass by way of E = mc2 (an equation, incidentally, that was not invented by Einstein, but by about a half-dozen scientists before him), and then claim that the increased energy on the proton can be understood as an increase in mass. Not so fast, Nellie. If the proton is traveling against an Aether (which in both 1887 and 1925 Michelson showed existed) then the proton will increase in heat energy caused by friction against the Aether, and one can figure out what this heat energy is by using the same E = mc2.

The upshot? There is no confirmation for Special Relativity. But there is plenty of disconfirmation for it, staring with Michelson's two experiments of 1887 and 1925. This is precisely why Michelson never accepted Einstein's Special Relativity theory (but if you read the rest of the January 25, 1925 New York Time article, Michelson is made to appear as if he accepted Relativity theory after he did his 1925 experiment).

The most interesting irony about SRT and GRT is, whereas SRT was invented in 1905 to make it appear as if the Earth were moving and not fixed in the center of the universe, by 1915 when Einstein was forced to invent GRT because SRT did not include Gravity and inertial forces, Einstein found

that GRT allowed the Earth to resume its fixed position in the center of the universe with the universe rotating around it. You might say that Einstein was hoist by his own petard.

At 0:21 to 1:09, City Girl says, "Let's start with things we must accept. There is no such thing as absolute motion or absolute rest. Objects move relative to each other….The Earth is constantly in motion, the sun is constantly in motion, and the galaxy is constantly in motion."

From the above analysis of Tyson, we can see why City Girl wants her viewer to accept no absolute motion or absolute rest right from the start. That stipulation immediately eliminates a fixed Earth as the answer to the 1887 Michelson-Morley experiment. If the Earth is fixed, there is both absolute motion and absolute rest, for the Earth would be in absolute rest and all the celestial bodies would be in absolute motion with respect to the absolute rest of the fixed Earth.

NB: what City Girl calls "classical relativity" is a bit confusing. It is well known that if a baseball is thrown at 10mph on a train moving at 50mph, the baseball is moving 60mph with respect to an observer at rest who is not on the train. This is known as Galilean Relativity.

At 1:27, City Girl claims as her next "must be accepted principle" that light must always be the same speed when observed by various observers. Notice, she hasn't confirmed this assumption to be true (just as Tyson didn't show any confirmation for it either).

We noted earlier that Einstein had two choices to explain the 1887 Michelson-Morley experiment: (1) to make the Earth constant (i.e., not moving in space); or make light constant (always the same speed no matter who is observing it).

If you choose #2, then you are also required to dilate time, contract lengths, and increase mass in order to make everything else balance.

City Girl then presents the idea that Alex is moving near the speed of light and that as a result his clock is moving slower (i.e., time is contracting for Alex, not dilating). Hence, if his time is slowed, "his light can travel at a greater distance" apparently because it has more time to travel.

At 3:23, City Girl admits this is all confusing but, after all, it was given to us by "the most brilliant scientist of the 20th century" and the implication is you need to accept it because he was so much smarter than you. In reality, as we have seen, Einstein did whatever he could to defy the experiments that showed the Earth was standing still in space.

At 3:37, City Girl speaks of "length contraction." She claims that since time dilation isn't enough to compensate for what Alex will experience, "length contraction" has to be added to give the full effect. Actually, City Girl doesn't understand her own theory. It is not because time dilation "isn't enough" and thus one must add length contraction to make up for what time dilation lacks. It other words, it is not like adding 1 + 1 to get 2. The reality in Relativity theory is that time dilation must occur as a consequence of length contraction. It is more like 1 × 1 instead of 1 + 1.

Let's review. As we noted earlier, if one makes light constant, it then requires length contraction. Why? Because since Einstein wanted to keep everyone believing that the Earth was revolving around the sun, he had to claim that the apparatus of Michelson's 1887 experiment contracted just enough to make it appear as if the Earth was standing still in space. By what amount did the apparatus contract? The New Length = The Old Length × $\sqrt{1 - v2/c2}$.

But if you contract the length of an object, it will also require you to dilate the time the object was in motion. For if an object is traveling from point A to point B and its length is contracted while moving to point B, then the object will not touch point B in the same time it would have reached point B if the object had not been contracted. To solve this problem, Einstein

was required to dilate (increase) the time so that the object can reach point B at the required time. The increase in time was calculated by the same equation that length was contracted, namely, The New Time = The Old Time × 1/√1 – v2/c2.

At 4:43, City Girl says that Einstein used the word "spacetime" to combine the effects of time dilation and length contraction. "Space" implies that when objects move they contract, and "time" implies that their time of travel is dilated (or contracted, depending from what frame of reference it is observed). It was Minkowski who put the concept of "spacetime" into an equation (x2 + y2 + z2 – c2t2), for modern science cannot propose a concept with having it put into an equation, whether the equation makes sense or not. Minkowski's equation doesn't make any sense, for it seeks to make a dimensional relationship between physical Euclidean space and the abstract entity of time.

But what we have seen is that the only reason Einstein added time to the mix was because he had contracted the Euclidean dimension of length (in an attempt to keep the Earth moving when the experiments showed it was standing still). And somehow, the constancy of the speed of light was to serve as the glue that held the heretofore 'unglueable' entities of Euclidean space and abstract time together into one entity. Einstein never told us what made up "spacetime," but it was treated in the physics after him as if it had a reality all its own.

At 4:50 City Girl states that "time slows down for objects traveling near the speed of light, and stops for object traveling at the speed of light…and time must go backward for objects that travel faster than the speed of light…this is why nothing can travel faster than the speed of light."

These, of course, are natural consequences of the theory, but City Girl tries to turn them into practical necessities that make life possible, e.g., we can't go backward in time because nothing can travel faster than light.

But here is where modern science is found, once again, contradicting itself. According to the Big Bang theory, space is being created as the universe expands, and this space, which would have to be the same "spacetime" that Einstein invented in Special Relativity, is said to be expanding way beyond the speed of light. So, the fundamental postulate of Special Relativity is being violated wholesale in the Big Bang theory – a theory which is said to be governed by Einstein's Relativity theory.

At 5:30, City Girl says that Special Relativity only applies to objects moving at the same speed, and she is correct. But what she doesn't say is that such a limitation makes the Special theory (setting aside its internal contradictions for the moment), a totally useless theory, since there is practically nothing in the universe that is moving at the same speed. If planets are revolving around stars, and galaxies are rotating on their axes and around each other, these are all in acceleration and never moving at the same speed.

This reminds us, once again, that the Special Theory was not invented to explain natural phenomena in the universe, but solely as an answer to the 1887 Michelson-Morley experiment which showed the Earth was standing still. Technically speaking, this was also a misapplication, since if the Earth is traveling around the sun then it is accelerating and thus doesn't fit the precise criterion of the Special Theory. All in all, the Special Theory was an ad hoc theory invented to keep the Earth moving in the face of all the experiments that showed it wasn't moving. The ad hoc nature of the theory was exposed when Einstein had to invent the General Theory ten years later so as to include Gravity and inertial forces.

At 6:30, City Girl says that General Relativity (GRT) shows that "Gravity occurs when a massive object warps spacetime." But according to Special Relativity, space is empty. It is a vacuum. Nothing exists in it. So what is being "warped"? How can "spacetime," which is merely a mathematical equation to combine Euclidean space and abstract time be "warped" by a massive object? Relativity doesn't explain any of this to us. It just expects you

to accept that this is the way it has to be, since, as City Girl said herself, Einstein was "the most brilliant scientist of the 20th century."

Interestingly enough, what City Girl fails to reveal to her audience is that, in all practicality, the Special Theory and the General Theory contradict one another. For example, the Special Theory says that neither a material object nor light can exceed c, which is the speed of light as measured on Earth. The General Theory says that both a material object and light can exceed c, since the speed depends on the presence and application of Gravity and inertial forces. (Incidentally, astrophysicists use General Relativity to explain why "spacetime" can expand faster than c, in case you were wondering).

At 6:18, City Girl attempts to explain how all this can be true. She says, "Countless experiments have been carried out and Einstein's equations hold true. Modern GPS uses Einstein's Relativity theory to pinpoint our locations with impressive accuracy."

Here is the real truth. Although many "experiments" have been done, none have confirmed Einstein's "Relativity theory." Let's take the very example that City Girl uses – the GPS system. If anything, the GPS disconfirms Einstein's theory. This was known when it was discovered that GPS signals going from east to west (ETW) travel faster than those sent from west to east (WTE), by about 50 nanoseconds, all day, every day. But this defies the Special Theory, which claims that the signals should travel at the same speed, since, as Relativists consistently tell us, "the speed of light is always the same."

So, in order to compensate for this discrepancy in light speed, the technicians adjust the GPS satellites to absorb the 50 nanosecond difference in order to make the speed of light the same for both ETW and WTE. But they don't tell the public that they make these adjustments. Instead, they make it appear that Special Relativity is supported by the GPS.

Laying aside the outright lying that the science establishment does with regard to the GPS, why would electromagnetic waves travel faster ETW than WTE? The reason is that there is a relative rotation between Earth and space, as we noted earlier. Space is going ETW but Earth is going WTE, relatively speaking. So, any signal sent WTE in space is going to run into space traveling ETW. Conversely, if the signal is sent ETW, it will travel with space that is already traveling ETW and thus move faster.

One thing more of note. Although the difference between ETW and WTE was discovered in the 1925 Michelson-Gale experiment, it was discovered earlier in an experiment performed by Georges Sagnac in 1913. He used the same principle of the interference of light waves as Michelson did in 1887, but oriented his interferometer in a different way. He noticed that light waves traveling ETW always went faster than those traveling WTE. The same phenomenon occurs in many applications today, and it is a common occurrence in physics. It is called the Sagnac Effect. Relativity has no explanation for why it occurs, but they do admit that it occurs. In fact, when the technicians adjust the GPS computers to compensate for the 50 nanosecond difference of signals from ETW to WTE, they call it "the Sagnac Correction."

At 6:40, City Girl gives her version of the Hefele-Keating experiment performed in 1971 as confirmation for General Relativity. She talks about planes that carried cesium clocks westward and eastward. When the clocks returned, they were "not in sync." Well, we know why they were not "in sync" and the answer has nothing to do with "Relativity." It is explained by the very phenomenon we noted above concerning the GSP system. When planes containing cesium clocks are flown WTE they run slower than when flown ETW. The reason they do so is that the Aether discovered by both Sagnac in 1913 and Michelson-Gale in 1925 (NB: both Sagnac and Michelson attribute their results to "Aether" in their peer-reviewed papers), is traveling ETW and will resist light waves traveling WTE, by about 50 nanoseconds.

Conclusion:

Einstein's theories were invented to keep the Earth moving when all the experimental evidence showed it was not moving.

http://galileowaswrong.com/wp-content/uploads/2015/06/Neil-Tyson-Review.pdf/ Robert Sungenis, Sungenis@aol.com, June 15, 2015

The Michelson-Morley Experiment: No Movement of The Earth Though Space

In 1887, Albert Michelson and Edward Morley set up a device which split up light: one beam in the direction of the Earth's rotation, and one at right angles. The two light beams then recombined and hit a photographic plate. The difference is speed of the two beams would create an interference pattern. They expected to measure a speed of 30 km/s as that was the speed of the Earth's supposed rotation, but instead registered a variable difference of between 1 and 10 km/s each time the experiment was repeated. They called this a "null" result. This confirms that the Earth is not moving at all through space, and at the same time, confirmed the existence of the Aether. The traveling light wasn't moving with the Earth.

It didn't stop there, Georges Sagnac, and Henry Gale conducted similar experiments, but on a rotating platform, which again demonstrated the existence of the Aether, already confirmed by default in 1871 and 1885 by combining the results from George Airy and Foucault's pendulum, and also in 1887 by the Michelson-Morley experiment.

The Sagnac Effect: No Axio Rotation on Earth Confirmed

The Sagnac effect, also called Sagnac interference, named after French physicist Georges Sagnac, is a phenomenon encountered in interferometry that is elicited by rotation. The Sagnac effect manifests itself in a setup called a ring interferometer. A beam of light is split and the two beams are made to follow the same path but in opposite directions. On return to the point of entry the two light beams are allowed to exit the ring and undergo interference. The relative phases of the two exiting beams, and thus the position of the interference fringes, are shifted according to the angular velocity of the apparatus. In other words, when the interferometer is at rest with respect to a nonrotating frame, the light takes the same amount of time to traverse the ring in either direction. However, when the interferometer system is spun, one beam of light has a longer path to travel than the other in order to complete one circuit of the mechanical frame, and so takes longer, resulting in a phase difference between the two beams. This arrangement is also called a Sagnac interferometer. Georges Sagnac set up this experiment to confirm the existence of the Aether and that the Earth does not rotate on an axis.

How do you think the advocates of Heliocentric theory responded? Why, they made something up of course! What else could they do but invent another wild theory to play down these experimental results and lead us further into the cesspit of fallacy. Enter showbiz academic of the 20th century, Einstein and the special theory of relativity.

The Michelson–Gale–Pearson Experiment

The Michelson–Gale–Pearson Experiment (1925) is a modified version of the Michelson–Morley experiment and the Sagnac-Interferometer. It measured the Sagnac effect due to Earth's rotation, and thus tests the theories of special relativity and luminiferous ether along the rotating frame of Earth.

Experiment

The aim, as it was first proposed by Albert A. Michelson in 1904 and then executed in 1925, was to find out whether the rotation of the Earth has an effect on the propagation of light in the vicinity of the Earth. The Michelson-Gale experiment was a very large ring interferometer, (a perimeter of 1.9 kilometer), large enough to detect the angular velocity of the Earth. Like the original Michelson-Morley experiment, the Michelson-Gale-Pearson version compared the light from a single source (carbon arc) after travelling in two directions. The major change was to replace the two "arms" of the original MM version with two rectangles, one much larger than the other. Light was sent into the rectangles, reflecting off mirrors at the corners, and returned to the starting point. Light exiting the two rectangles was compared on a screen just as the light returning from the two arms would be in a standard MM experiment.

Results

The outcome of the experiment was that the angular velocity of the Earth as measured by astronomy was confirmed to within measuring accuracy. The ring interferometer of the Michelson-Gale experiment was not calibrated by comparison with an outside reference (which was not possible, because the setup was fixed to the Earth). From its design it could be

deduced where the central interference fringe ought to be if there would be zero shift. The measured shift was 230 parts in 1000, with an accuracy of 5 parts in 1000. The predicted shift was 237 parts in 1000. According to Michelson/Gale, the experiment is compatible with both the idea of a stationary ether and special relativity.

As it was already pointed out by Michelson in 1904, a positive result in such experiments contradicts the hypothesis of complete Aether drag, as the spinning surface of the Earth experiences an Aether wind. The Michelson-Morley experiment shows on the contrary that Earth fully drags the Aether in its orbital motion, resulting in a null Aether wind opposite the orbital speed. Those two results are not incompatible per se, but in the absence of a model to reconcile them, they are more ad hoc than the explanation of both experiments within special relativity. The experiment is consistent with relativity for the same reason as all other Sagnac type experiments (see Sagnac effect). That is, rotation is absolute in special relativity, because there is no inertial frame of reference in which the whole device is at rest during the complete process of rotation, thus the light paths of the two rays are different in all of those frames, consequently a positive result must occur. It's also possible to define rotating frames in special relativity (Born coordinates), yet in those frames the speed of light is not constant in extended areas any more, thus also in this view a positive result must occur. Today, Sagnac type effects due to Earth's rotation are routinely incorporated into GPS.

Interpretation of The Michelson-Gale-Pearson Experiment

The Michelson–Gale–Pearson experiment, sometimes called the Michelson-Gale experiment, was a large-scale version of the Michelson-Morley Experiment and the Sagnac-Interferometer which attempted to

measure the Sagnac Effect due to the rotation of the earth. It has been claimed that this experiment provided evidence for the earth's rotation.

From a work titled The Sagnac and Michelson-Gale-Pearson Experiments (Archive) by Dr. Paulo N. Correa we read on p.5:

"The outcome of the MGP experiment was ambiguous, though maybe no more ambiguous than the small persistent positive shift observed in MM experiments. Composed of 269 separate tests with readings that varied from -0.04 to +0.55 of a fringe, and a mean at +0.26 fringes, the MGP experiment could be interpreted to yield a positive result of ≈ 0.3 km/s - therefore near the speed of the earth's rotation, but the result was of borderline significance. It could be said that the experiment was inconclusive because it adduced neither confirmation that there was a shift in the phase of the light beams, nor that there wasn't one. "

Essentially the tests saw wild results. There was almost no change to light's velocity in one test, and then a lot of change in another test. It is perplexing that the rotation of the earth would start and stop when tested at different times. Only through the statistics was it claimed that the experiment saw the rotation of the earth. As stated above, the inconsistent results were ambiguous in nature and could offer no evidence of the shift in the phase of the light beams.

Importance of Consistency

In attempt of correlating such results with the rotation of the earth the mean is discussed, but what of the median, mode or other types of means and averages? What of the fact that one of the extremes is near zero? Which is the baseline that is being modified?

Consistency in empirical experimental investigation is of prime importance to science integrity. If one were to conclude from such an experiment that the earth is rotating, but also imagines that a mechanism is

modifying the results from their own favored ideal to create the inconsistent results seen, the conclusion is fallacious. That imagined mechanism which modified the results could equally be creating those results. One sees that consistency is required for any valid test of a phenomena. In sciences which are not desperate to confirm something, experiments with inconsistent results are often rejected altogether for that very reason.

--https://wiki.tfes.org/Michelson-Gale-Pearson_Experiment

Airy's Failure

The experiment called Airy's Failure was a test conducted by Astronomer Royal Sir George Biddell Airy in 1871, in which Airy failed to detect the motion of the earth. The experiment showed that the stars move relative to a fixed Earth. By first filling a telescope with water to slow down the speed of light inside, then calculating the tilt necessary to get the starlight directly down the tube, Airy unintentionally demonstrated that the earth was fixed horizontally since the starlight came in at the correct angle without needing to change the tilt of the telescope.

Telescopes have to be very slightly tilted to get the starlight going down the axis of the tube because of the earth's "speed around the sun". Airey filled a telescope with water that greatly slowed down the speed of the light inside the telescope and found that he did not have to change the angle of the telescope. This showed that the starlight was already coming in at the correct angle so that no change was needed. This demonstrated that it was the stars moving relative to a stationary earth and not the fast orbiting earth moving relative to the comparatively stationary stars. If it was the telescope moving he would have had to change the angle.

Reality Reviewed: Airy's Experiment by Neville Thomas Jones, Ph.D.

"Many think it confirmed long ago that the World orbits the Sun. However, the results of two simple experiments, both performed in the nineteenth century, showed that it is the stars which move, and not the World.

An experiment with a water-filled telescope was performed by the then Astronomer Royal, George Airy (after whom the Airy disc of diffraction theory is named), in 1871, which can be considered to be a variation of an earlier investigation by François Arago, performed with a moving slab of glass in 1810.

Arago showed that either light itself or the luminiferous Aether is dragged along by a moving piece of glass. Fresnel explained the effect by assuming it was the light-carrying medium (this is called Fresnel drag). George Stokes explained it via compression of the Aether, but the important point is whether we can tell which one is doing the moving - the light source or the transparent material. When Arago investigated this effect with starlight, he concluded that the World (with respect to which the glass plate was stationary in this instance) was at rest and that it was the stars that were moving.

The experiment subsequently performed by Airy was first proposed by Ruggiero Boscovich for testing James Bradley's heliocentric aberration idea of 1728. This, in turn, was thought up to explain the elliptical motion of the star Gamma Draconis, as observed by James Bradley and Samuel Molyneux, over a fairly long time period commencing in 1725.

What was the result of Airy's experiment? Exactly the opposite outcome to that predicted in the rotating-World scenario. (Note that the experiment is usually referred to as 'Airy's failure' for this reason.)

Just like Arago before him, George Airy confirmed that the World was stationary and the stars are moving. It does not matter whether there exists a luminiferous Aether or not, because the dragging of starlight, as

demonstrated initially by Arago, is real, irrespective of how we try to explain it. Both Arago and Airy showed that it is the stars, and not the World, which move (although Airy did not actually go so far as to admit this). In addition, we can say that Michelson-Morley, Trouton-Noble and many, many others have consistently demonstrated no motion of the World around the Sun." -- https://wiki.tfes.org/Airy%27s_Failure

Foucault Pendulum

The Foucault Pendulum is a famous experiment which is alleged to give simple, direct evidence of the earth's rotation. Introduced in the 1851, Léon Foucault claimed that the swinging rotational motions were confirmation of the earth's rotation. The pendulum swings back and forth, and over time, slowly seems to rotate over its arena or "pit". It is explained that the earth is rotating beneath the pendulum. Today Foucault Pendulums are popular displays in science museums and universities.

A common criticism of the Foucault Pendulum is to point out that when the pendulum experiment has been recreated and put into motion, the pendulum has often been seen to rotate in excess, in shortness, or in an opposite direction from the direction it should have traveled according to theory. At times it does not rotate at all. Those scientists who have repeated the experiment have freely admitted that it was difficult to avoid giving the pendulum some slight lateral bias at starting.

In the unmotorized Foucault Pendulum experiment the pendulum is, as we will read below, generally inconsistent in its movements. Because of air resistance and the impossibility of perpetual motion, the unmotorized pendulum will only move for a limited period before needing to be reset. In motorized Foucault Pendulums, as seen in museum exhibits, it is the

repetitive machinery which imparts the repeating lateral bias that creates the regular results seen for the museum's visitors.

Thus, the experiment is entirely invalid as a demonstration of diurnal rotation. That a pendulum on a line can rotate as it swings back and forth has more to do with the initial conditions which set it into motion than the supposed rotation of the earth.

Lady Blount provides the following in The Romance of Science:

"This pendulum, modern scientists tell us, affords a visible confirmation that we are living on a whirling globe, which, according to a 'Work on Science' now before me, is spinning upon its so-called axis at the rate of over 1,000 miles an hour at the equator; and, in addition to other motions, is rushing on an everlasting tour round the sun (the diameter of which is said to be 813,000 miles, and its weight 354,936 times greater than the earth from which it is said to be about 93,000,000 miles distant,) at the rate of over 1,000 miles per minute. Now to confirm that the earth really has these motions a pendulum is suspended at the show; the showman sets motion, and bids the gaping world of thoughtless men and women to 'behold a confirmation' that we are living on a whirling globe which is rushing away through space!"

The Popular and Scientific Reception of the Foucault Pendulum in the United States by Michael F. Conlin, Ph.D.

History professor Michael Conlin gives us a historical account of the Foucault Pendulum and its reception. We read that, although the Foucault Pendulum was publicly supported by Royal Astronomer George Airy and others, it was privately rejected:

"In private correspondence, Airy had repeatedly dismissed the Foucault pendulum experiment as a "fraud." He regarded the latitude-dependent formula for the period of the apparent precession of the

pendulum as a "mathematical curiosity having no application whatever to the soi-disant experiment." Attending no demonstrations, Airy based his conclusion on oral accounts of the experiment. Concurring with Airy, Powell accepted the theory but held that as a "practical question" the experiment was "doubtless open to every kind of doubt." After learning of successful demonstrations by British scientists, Airy conducted his own experiments. Although it was possible to conduct the experiment properly, he concluded that the "difficulty of starting a free pendulum, so as to make it vibrate at first in a plane, is extremely great."

Although Airy and Powell kept their opinions private, popular journals learned of their rejection of the experiment. Linking Airy's and Powell's doubts to recent unsuccessful popular demonstrations of the experiment, these journals questioned the validity of the Foucault pendulum. The London Literary Gazette recommended caution to those who would attempt the experiment because "persons unqualified by previous habits of research and accurate investigation" had failed. The Literary Gazette knew of several exhibitions "in which, to the horror of the spectators, the earth has been shown to turn the wrong way." The Illustrated London News expressed similar reservations, observing that the "experiment is now giving rise to much controversy, and it is hard to conceive that there is not some fallacy lurking at the bottom of it." (p.193)

"In Newark C. Dowden, a correspondent of the AAAS [American Association for the Advancement of Science], conducted an unsuccessful repetition in July. In an article for Appletons' Mechanics' and Engineers' Journal, Dowden explained that scientists had "jumped to a hasty and premature conclusion" in asserting that a vibrating pendulum could provide a visible confirmation of the earth's rotation because of two "unjustifiable" assumptions: that friction at the point of suspension was nothing and that the pendulum could vibrate independently of the earth's motion. Dr. William Kitchell, a member of the AAAS, and two other gentlemen repeated the

experiment with a pendulum thirty feet in length at the New Jersey Art-Union Gallery in Newark. After numerous trials made over several days, they reported to the Newark Advertiser that the result was "invariably ELLIPTICAL MOTION!"

While it might have been theoretically possible to take sufficient precautions to repeat the experiment successfully, they "reluctantly" concluded that air resistance and the impossibility of bringing the pendulum completely to rest before starting were "insuperable obstacles to its practical performance. "After consultation with Dowden, Kitchell reasoned that Foucault's demonstration at the Pantheon and subsequent American exhibitions must have been "vitiated" by "unobserved errors." They boldly proposed another method to demonstrate the earth's motion with a pendulum by measuring the deviance between the calculated motion and the observed motion of the apsides of the ellipse. They hoped that Strong would determine the angular motion of the ellipse of a given pendulum so that they might perform the experiment. Assuring them that the Foucault pendulum demonstrated the earth's rotation, Strong offered to repeat the experiment for doubters. Dowden remained unconvinced, believing that he had a "positive duty" to reject the Foucault pendulum because its "advocates cannot agree among themselves," its confirmations were "impossible," and its workings "absolutely absurd."2 ”

The work goes on at length on the public controversy surrounding the experiment.

Systematic Error

Prof. A.C. Longden of Knox College found that the pendulum was subject to mechanical errors and bias. From "On the Irregularities of Motion of the Foucault Pendulum" in the April 1919 edition of The Physical Review we read:

"Nerveless, the pendulum behaves as if it had two periods. Furthermore it always started rotating clockwise, never counterclockwise. This fact remained a puzzle until another wire was substituted for the wire which I had been using. The two wires were cut from the same piece, and were certainly as nearly alike as two wires could well be, and yet the pendulum now invariably started rotating counterclockwise--never clockwise.

After starting the pendulum a number of times with the new wire and always getting the same results, counterclockwise motion at the start, I rotated the wire 180 degrees on its own axis, without disturbing either the pendulum ball or the support. The wire may be rotated by turning the screw G, Fig. 7, without disturbing the hanger, and a similar arrangement at the bottom enables us to rotate the wire without rotating the ball. Now, the pendulum started rotating clockwise. "

When the wire was replaced or rotated, the pendulum moved in the opposite direction. This may be a reason for why some who have performed this experiment have claimed to see consistency in direction.

Non-Uniform Variation

In Earth Not a Globe Samuel Rowbotham informs us that the variation of the pendulum is often non-uniform and unpredictable:

"First, when a pendulum, constructed according to the plan of M. Foucault, is allowed to vibrate, its plane of vibration is often variable – not always. The variation when it does occur, is not uniform – is not always the same in the same place; nor always the same either in its rate or velocity, or in its direction. It cannot therefore be taken as evidence; for that which is inconstant cannot be used in favor of or against any given proposition. It therefore is not evidence and confirms nothing!

Secondly, if the plane of vibration is observed to change, where is the connection between such change and the supposed motion of the Earth?

What principle of reasoning guides the experimenter to the conclusion that it is the Earth which moves underneath the pendulum, and not the pendulum which moves over the Earth? What logical right or necessity forces one conclusion in preference to the other?

Thirdly, why was not the peculiar arrangement of the point of suspension of the pendulum specially considered, in regard to its possible influence upon the plane of oscillation? Was it not known, or was it overlooked, or was it, in the climax of theoretical revelry, ignored that a 'ball-and-socket' joint is one which facilitates circular motion more readily than any other?"

The Wrong Direction

The Foucault Pendulum is often seen to move in the wrong direction entirely. See the following from A Hundred Confirmations The Earth is Not a Globe:

Astronomers have made experiments with pendulums which have been suspended from the interior of high buildings, and have exulted over the idea of being able to confirm the rotation of the Earth on its 'axis,' by the varying direction taken by the pendulum over a prepared table underneath – asserting that the table moved round under the pendulum, instead of the pendulum shifting and oscillating in different directions over the table! But, since it has been found that, as often as not, the pendulum went round the wrong way for the 'rotation' theory, chagrin has taken the place of exultation, and we have a confirmation of the failure of astronomers in their efforts to substantiate their theory."

From The Romance of Science (8-10) by Lady Blount and Zetetes we read:

"We believe, with all due deference to the pendulum, and its proprietor, that it confirms nothing but the craftiness of the inventor; and we

can only describe the show and showman as deceptions. A thing so childish as this 'pendulum confirmation' that it can only be described as one of the most simple and ridiculous attempts to gull the public that has ever been conceived.

…It has been said that the pendulum experiment confirms the rotation of the earth, but this is quite impossible, for one pendulum turns one way; and sometimes, another pendulum turns in the opposite direction. Now we ask does the earth rotate in opposite directions at different places at one and the same time? We should like to know. Perhaps the experimenters will kindly enlighten us on this point.

…If the earth had the terrible motions attributed to it, there would be some sensible effects of such motions. But we neither feel the motion, see it, nor hear it. And how people can stand watching the pendulum vibrate, and think that they are seeing a confirmation of the motions of the earth, almost passes comprehension. They are, however, brought up to believe it, and it is thought to be 'scientific' to believe what the astronomers teach."

Museum Exhibit Devices

We read the following from an installation guide:

"Pay close attention to the photo beams alignment. This adjustment can affect the Ball's precession around the pit. It may require a couple of days to determine if precession is operating properly. Precession is a function of the Earth's rotation."

We are instructed to spend several days adjusting the alignment of the photo beams, which affects the pendulum's precession, an element which is supposedly a function of the earth's rotation, until we have determined that the "precession is operating properly".

Dr. Schoepffer, an eye-witness of the experiment, says:

"In an introductory speech Dr. Menzzer at Quedlinburg showed that until then there had been no confirmation for the Copernican hypothesis, the so-called confirmations being, after close investigation, just as many confutations, until the Foucault pendulum showed the rotation of the earth uncontrovertibly. The pendulum was tied, the string was burnt, the swingings began, but the pendulum deviated to the left, instead of to the right. It was hastily brought to rest. New burning of the string. This time the deviation was the one desired, and we were invited again to be present in the church the next morning at eight o'clock, to be convinced that the deviation agrees with the theory. On the following morning, however, we saw that the pendulum during the night had changed its mind, and had from the deviation to the right again returned to the left. To me this new confirmation did not seem to be quite in order. My belief in the Copernican doctrine was shaken by the speech of Dr. Menzzer, and I concluded to go to Berlin for an explanation.

After seeing the pendulum-experiment here also and, strangely, again with a deviation to the left, I went to Alexander v. Humboldt, who was indeed ever the first refuge of those seeking information. He received me very friendly and spoke the memorable words: "I have known, too, for a long time, that as yet we have no confirmation for the Copernican system, but I shall never dare to be the first to attack it. Don't rush into the wasps' nest. You will but bring upon yourself the scorn of the thoughtless multitude."

Furthermore, I have found, by careful experiments, that a skillful experimenter can let the pendulum deviate either to the left or to the right. And we must not overlook the fact that the deviations may be caused by air-currents, electricity, earth-magnetism, special apparatus, and perhaps many other causes. Blunt and Cox observed the most curious and contrary swingings. Phillips of New York found very great hourly deviations in the swinging-line. Walker observed a peculiarly swift deviation when the

pendulum swings in the magnetic meridian. D'Oliveira at Rio de Janeiro stated that the pendulum deviates to the right in the direction of the meridian, but to the left in the direction of the parallel. This deviation, diametrically opposed to the theory, was seen very often. And sometimes the pendulum does not deviate at all. Much more could be said against this "beautiful experiment." Though beautiful it may seem to the theorist, it certainly is far from being irrefragable evidence for the earth's motion."

Dr. Schoepffer's quote from Alexander von Humboldt (bio) appears again in The Earth Stands Fast.

South Pole Pendulum: Foucault Pendulum at South Pole

In 2001 a Foucault pendulum device was installed at the "South Pole" in the stairwell of a newly constructed research station. It has been claimed that this verified Foucault's theory. However, excerpts from the report show that adjustments had to be made to obtain the desired results.

"A hole was drilled through a length of 2×4 through which the pendulum's wire was fixed in such a way that it would have freedom of movement in all directions. The 2×4 was then fixed to the top of the stairwell and the wire suspended down into the stairwell.

There was no mechanism for keeping the pendulum swinging and the amplitude decayed within a couple of hours so it had to be restarted periodically over the 24 hour period.

Our first attempt with the pendulum showed the Earth spinning backward from what was expected. We didn't notice this at first because we're all from the Northern Hemisphere and are accustomed to the earth spinning in an anticlockwise direction. We then realized that from our frame of reference the earth should be spinning clockwise so we had to modify the pendulum.

Our second attempt showed the earth rotating in the proper direction but at an angular velocity twice what is expected (ire., 12 hour days instead of 24). We suspected some kind of government conspiracy but decided to make a further modification and try it again.

It was difficult to make the pendulum swing in a plane instead of an ellipse. After several attempts with various techniques of holding the bob and dropping it we always got some kind of ellipse instead of a plane. This adds to our error because it is more difficult to locate and mark the pendulum arc's apex. A way to do it is to suspended the bob by tying it off with a piece of string and letting it settle, then burn through the string. The bob would then drop without any outside force and swing in a plane. Since it is against the Antarctica Treaty to have any open flames at the South Pole we could not do this. After much practice Mike Town got very adept at dropping the bob so that it arced in a plane."

Mach's Principle

One alternative explanation that has been suggested by those who do accept the Foucault Pendulum is Mach's Principle. Mach's Principle explains that if the earth was still and the all the stars went around the Earth then the gravitational pull of the stars would pull the pendulum. As Mach said "The universe is not twice given, with an earth at rest and an earth in motion; but only once, with its relative motions alone determinable. It is, accordingly, not permitted us to say how things would be if the earth did not rotate."

https://wiki.tfes.org/Foucault_Pendulum

The Fictitious Coriolis Effect

A rotating Round Earth model predicts that bodies which move through the air will be appear to be deflected Eastwards or Westwards[1] in their path of movement due to the rotation of the earth. This effect has been termed the Coriolis Effect.

The Coriolis Effect, however, appears to be a fictitious effect that is not, and has never been, properly demonstrated with experimental evidence. Its proponents are unable to show that this effect has ever been detected or that it is truly necessary to account for in various operations. The evidence for this effect appears to be based entirely on 'common knowledge', on how things 'should be', and by authors who make 'predictions'; but all articles and documents presented in favor of the "Coriolis Effect" are without reference to, or demonstration of, the critical and necessary experimental evidence to directly confirm the matter.

Origin of the Coriolis Effect

In an article titled History of the Coriolis Force (Archive) the origin story of the "Coriolis Effect" is described:

"The first detailed study on a manifestation of the "Coriolis" force was made by Giovanni Borelli in the 1660s, when he considered the problem of falling bodies on a rotating Earth. In a theoretical analysis, he found that they will undergo a small eastward deflection during their fall."

Artillery

It has been alleged that the Coriolis Effect plays a part in the ballistic trajectory of artillery, and that artillerymen must account for it for accuracy. We are presented with military range tables for accounting for the Coriolis Effect, and so, it is suggested, the Coriolis Effect must be a real effect.

When the Coriolis Effect proponents are challenged on the accuracy or validity of this table, those proponents proclaim that if the table were incorrect then artillery and artillerymen would be routinely inaccurate and miss their targets, and how could that be the case?

Artillery Ballistics Not Accurate

From the introduction of the same paper which was provided to us we read that military artillery, which is purported to require adjustments for the "Coriolis Effect," is indeed, routinely inaccurate. The first round generally misses its target. Only after missing a number of times, and then adjusting the alignment of the cannon to compensate, does the artilleryman hit his or her target.

From the above 1967 artillery paper (Archive) we read in the introduction on p.10:

"Ideally, a firing table enables the artilleryman to solve his fire problem and to hit the target with the first round fired. In the present state of the art, this goal is seldom achieved, except coincidentally. The use of one or more forward observers, in conjunction with the use of a firing table, enables the artilleryman to adjust his fire and hit the target with the third or fourth round fired. "

In another artillery paper from 1973, we read a similar quote:

"When today's field artillery firing tables are used with today's confirmed delivery techniques [as described in VM 6-401], accurate fire can be brought to bear on targets.

Such a statement can only be made because today's confirmed delivery techniques recognize that many errors (both precision and bias errors) exist and those techniques are designed to minimize these errors. The techniques are not designed to produce first round hits, nor does the statement above infer that such hits can be achieved. "

In 2016 a claimed expert named Guy Schuchman says that, despite GPS and modern conferment, the same problems exist today (Archive):

"It's extremely rare for the first round to hit the target. It's just too much data which not all of it can be measured in 100% accuracy and human errors are quite common: small offsets in calculating the coordinates of the

target or the gun, small errors in calibration, humidity of the explosive propellant, etc.. The first round is just a test round. When it falls near the target it's the artillery observer's job to see how far and in what offset did it hit away from the target and provide the FDC with the data."

A 2017 paper by Australia's Armament Research Service admits the same:

"Even though great effort is made to calculate the effect of environmental and ballistic variables, an unguided artillery projectile will not reliably strike the exact point at which it is aimed. Although artillerymen strive for first round accuracy, this will still be measured in tens of meters, and in deliberate targeting or combat engagements this introduces a degree of uncertainty when assessing the safety of friendly forces and non-combatants. Properly employed, artillery gun and mortar projectiles and rockets land in a predictable area (accuracy) in a non-predictable fashion (precision), and in common with small arms fire (especially machine guns), the employment of artillery systems yields a 'beaten zone' or field of fire into which rounds will fall. This zone is generally cigar-shaped with the long axis falling along the line from the gun to the target, as deviation tends to occur in range rather than azimuth. The length and breadth of the zone is range dependent, as with greater range, external factors have more time to exert influence on the projectile flight. "

Sharp Shooting

It has been alleged that the Coriolis Effect also plays a part in accurate sharp shooting over long distances. However, we find online references (14:30) where claimed sniper veterans have stated that they have never taken the Coriolis Effect into account when shooting. We point to the U.S. Marine Corps, U.S. Army, and U.S. Navy SEAL sniping manuals, which do not mention the Coriolis Effect anywhere in their sniping texts at all.

Sniping Manuals

- U.S. Marine Corps Sniping Manuals
- 1981 FMFM 1-3B Sniping (Archive)
- 2016 MCTP 3-01E Sniping
- U.S. Army Sniper Field Training Manuals
- 1994 FM 23-10 Sniper Training (Archive)
- 1989 TC 23-14 Sniper Training and Employment
- 2003 FM 3-05.222 Special Forces Sniper Training and Employment (Archive)
- U.S. Navy SEAL Sniping Manual
- US Navy SEAL Basic Sniper Training
- US Navy SEAL Sniper Training Program

The sniper must know the general principles of: perspective, vanishing point, perspective drawing, delineation, and geographical areas of intelligence operations. However, the words "Coriolis" or "Coriolis Effect," do not appear anywhere in the U.S. Marine Corps, U.S. Army, or U.S. Navy SEAL sniper manuals.

The reader might ponder why the U.S. Military does not teach this allegedly important effect to its snipers.

Misleading References

The internet is rife with references that the accounting of the Coriolis Effect is actively used, but this is an assumption without demonstration.

The World's Longest Sniper Kill: The Enemy Shot Dead at 3,871 Yards (Over 2 Miles Away)

"To understand the complexity of the shot, it's best to start with a sniper maxim: sniping is weaponized math. Although a .50 caliber sniper rifle bullet can fly as far as five miles, a host of factors including gravity, wind

speed and direction, altitude, barometric pressure, humidity and even the Coriolis Effect act upon the bullet as it travels. Even worse, these effects increase the farther the bullet travels. A successful sniper team operating at extreme distances must do its best to predict exactly how these factors will affect the bullet and calculate how to get the bullet back onto target. ”

This quote actually says, "these are the factors that will affect the bullet," rather than "these are the factors that the sniper accounted for." One is a commentary by the author and the other is a depiction of process. The reader should be able to see and understand that there is a difference.

Deflection of Falling Bodies

From the 17th century well into the 19th century the deflection of falling objects was a hotly debated subject, and numerous experiments were conducted to study the landing path of bodies when dropped from high distances. To protect from the wind and elements the experiments were conducted within towers, high churches, and down underground mines and shafts.

From the History of the Coriolis Force (Archive) piece there is only one experiment which author of the article references in favor of the Coriolis Effect. All other papers referenced in the article appear to be theoretical analysis'.

“Only at the beginning of the 19th century were experiments done in a sufficiently careful manner to detect the deflection. For example,

This is one of the Deflection of Falling Body Experiments. From 'The Report of the Sixteenth Meeting of the British Association of the Advancement of Science' (Archive) we find an analysis of Dr. Benzenberg's experiments:

“In the beginning of this century, Dr. Benzenberg undertook new experiments at Hamburg, from a height of about 240 feet, which gave a

deviation of 3·99 French lines; but they gave a still greater deviation to the south. Though the experiments here quoted seem to be satisfactory in point of the eastern deviation, I cannot consider them to be so in truth; for it is but right to state that these experiments have considerable discrepancies among themselves, and that their mean, therefore, cannot be of great value. In some other experiments made afterwards in a deep pit, Dr. Benzenberg obtained only the eastern deviation, but they seem not to deserve more confidence. Greater faith is to be placed in the experiments of Professor Reich, in a pit of 540 feet, at Freiberg. Here the easterly deviation was also found in good agreement with the calculated result; but a considerable southern deviation was observed. The numbers obtained were the means of experiments which differed much among themselves. After all this, there can be no doubt that our knowledge on this subject is imperfect, and that new experiments are to be desired. ”

Setting Aside All Authority: Giovanni Battista Riccioli and the Science against Copernicus in the Age of Galileo by Prof. Christopher M. Graney

Starting with Benzenberg's experiments at the bottom of p.106 (Archive) we read an overview of the saga:

“In 1802, Johann F. (1777-1846) also attempted the experiment, in Hamburg, Germany, by dropping balls from a height of 235 feet. Benzenberg recorded an eastward deflection in agreement with theory. He also recorded a smaller southward deflection of 2.4 millimeters, which vanished in a later experiment. Moreover, the extreme values of his measurements varied by as much as nine times their average value, and he detected significant changes in his plumb line caused by the appearance of the sun from behind clouds. Rigge concluded that Benzenberg's results also could not be considered even a qualitive detection of the Earth's rotation.26

Three decades later, in 1831, Ferdinand Reich (1799–1882) took up the experiment, dropping balls down a mine shaft 520 feet deep near Freiberg, Germany. The theoretical eastward deflection was over an inch, and Reich's average experimental deflection was almost exactly that. Although Rigge and others cite Reich's work as an example of a successful detection, his contemporaries noted that his results varied significantly. Still later, experiments in the 1840s in Cornwall with a 1300-foot drop produced wild results, including southward deflections of 10 to 20 inches, while the theoretical eastward deflection is less than 5 inches.27

Thus the question of the deflection of falling bodies was still being investigated and discussed at the turn of the twentieth century. During this time Edwin H. Hall (1855–1938) dropped nearly one thousand balls down a tube in his laboratory at Harvard University, seeking to determine exactly how a falling ball behaves, while Florian Cajori (1859–1930) wrote about a falling ball's mysterious southward deflection. Hall, too, noted that "curious things" could occur in these experiments. More prosaic examples of such curious things in Hall's day included magnetic fields deflecting steel or iron plumb lines from the perpendicular, and forces caused by magnetically induced electric currents in conducting metal balls. More extreme examples included plumb lines in a deep mine shaft that were observed not to be parallel, and balls falling down the same mine shaft that were observed never to reach its bottom.

Today, when turbulence and chaos are familiar concepts in physics, physicists are not surprised that dropping heavy balls from a tower fails to reveal the Earth’s rotation. Nor are they surprised that a ball falling through a great distance deviates unpredictably from its expected path, and that two identically dropped balls do not land in the same place. But even a century ago, the recalcitrant nature of this delicate but apparently straightforward experiment must have appeared to have been “curious” indeed—and all the

more so in Riccioli's or Hooke's or Guglielmini's time, when such things as induced magnetic effects were unknown.

This raises an interesting question regarding Riccioli's Coriolis effect argument against the Earth's diurnal rotation. Riccioli supposed that Earth's rotation should reveal itself in an easterly deflection of a heavy falling body. Newton wrote that the "advance of the body from the perpendicular eastward" will be very small, but "enough to determine the matter of fact." This simple test, which appears to involve nothing more than the initial velocity of the ball, the downward pull of gravity, and the upward drag of air resistance, should discover (as Newton wrote) the Earth's diurnal rotation. Yet it is bedeviled by all sorts of "curious things" seemingly beyond explanation. Absent the sort of Herculean effort made by Guglielmini, Benzenberg, Reich, and Hall—the kind made by scientists who know an effect must exist and are determined to find it—this simple test will fail to detect Earth's motion. "

Failed Experiments

In the above work Prof. Graney further suggests that efforts were made to hide or otherwise not report failed experiments (Archive):

Earth Not a Globe Chapter

In the book Earth Not a Globe, its author Samuel Rowbotham devotes an entire chapter to the Deflection of Falling Bodies experiment saga.

Deflection of Falling Bodies by Samuel Rowbotham

In this chapter Rowbotham walks us through numerous experiments, the inconsistencies among them, and concludes his chapter with:

"Thus it is admitted that deflection from a height of 300 feet "is so small as to be practically inappreciable;" that "great heights are necessary for giving only a deviation of one-tenth part of an inch;" that when this amount

was observed, "at the same time deviation to the south was given, which was not in accordance with the mathematical calculations;" that "the experiments have considerable discrepancies among themselves;" that "the experiments differed very much;" that "after all there can be no doubt that our knowledge on this subject is imperfect;" that on repeating the experiments with the utmost possible care down a shaft of 1320 feet in depth, the bullets did not fall easterly at all from the plummets, "but from 10 to 20 inches south of the plumb-line," and out of forty-eight bullets, forty-four fell "on the south side of the shaft, in situations which precluded exact measurements of the distances being taken;" and, finally, that puzzled mathematicians, with their ever ready ingenuity to make facts agree with the wildest of theories, even with those of a opposite character, conclude that "falling bodies may have either north, south, east, or west deflection from the plumb-line." What value can such uncertain and conflicting evidence possess in the minds of reasoning men? They are shameless logicians, indeed, who contend that, from such results, the Earth is confirmed to have a diurnal rotation! ”

Schlebusch Drop Plot

On p.271 of Weather Vol. 58 (Archive), we find an example of the results of such drop experiment that encouraged speculations of the Coriolis Effect:

“In 1803 an experiment, dropping iron pebbles in a 90m deep mine shaft, was conducted in Schlebusch, Germany. The event attracted the interest of the scientific community, and the 24-year old German mathematician Carl Friedrich Gauss and the 53-year old French mathematician Pierre Simon de Laplace volunteered to calculate the theoretically expected deflection.”

One quickly sees that the results are not consistent and that any argument in favor of the Coriolis Effect would need to be made on basis of statistics in these types of tests.

If the "Coriolis Effect" shifted the pebbles to the East by about 12 units, then how would this explain the Eastwards concentration of pebbles between 20 and 30 units? If we take away the Eastwards deflection of the "Coriolis Effect" from that group we find that those pebbles are still biased to the East. One would have to know why they are biased in order to know whether the Coriolis Effect had anything to do with it or not. The fact that they were already predisposed to Eastwards bias casts doubt on the matter.

As Rowbotham and others relate, other experiments did not show this Eastwards bias. Picking any few tests as evidence of the Coriolis Effect would be fallacious. Unlike other science cornerstone experiments, which have been repeated by classrooms, laboratories, and research groups for hundreds of years, these experiments were dropped from classroom and scientific interest.

Torsion Balance Experiments

Very sensitive Torsion Balance experiments began in 1889, with Barron Rosland von Eötvös' attempt to detect the Coriolis force.

Foundations of Modern Cosmology by Professor John F. Hawley (bio), and Katherine A. Holcomb

From p. 219 we read:

"The first highly accurate experiment to test the equivalence principle was performed in 1889 by Barron Rosland von Eötvös. Eötvös constructed a device called a torsion balance. He suspended two bodies of nearly equal mass but different composition, from a beam which hung from a very fine wire precisely at its center. If the magnitudes of the Coriolis force (from the Earth's rotation) and the gravitational force had differed between the bodies due to their differing composition, Eötvös would have been able to detect a

twisting of the wire. None was seen, and Eötvös was able to conclude that inertial and gravitational mass was equal, to approximately one part in 10^9. In the 20th century, Robert Dicke and others pushed the limit of such an experiment to 10^11, but the Baron's results were sufficient to convince many, including Einstein, that inertial mass and gravitational mass are equivalent. ”

Later experiments of the same torsion balance design produced similar results. No effects from any external forces or sources could be found. See Variations in Gravity.

Water Currents

Laboratory Water Vortex Experiments

In the 1960s a researcher named Ascher Shapiro claimed that water vortex direction was due to the "Coriolis Effect". The experiments started with bathtubs and then escalated to six foot wide tanks of water:

Shapiro’s Bathtub Experiment by Conor Myhrvold, November 1, 2011

“Over forty years ago, in the 1960s, the world briefly became captivated with how a bathtub drains. Did something called the Coriolis effect influence the twirling water?

The Earth’s rotation influences how fluids swirl on the planet’s surface. It’s why low-pressure systems in the northern hemisphere twist counterclockwise. This phenomenon, known as the Coriolis effect, is the appearance of an object to deflect to one side in a rotating reference frame. Since it is such a tiny effect on small scales, no one had yet confirmed that this inertial force actually affects how water leaves a bathtub, despite many previous efforts.

In 1962, the same year that Watson and Crick received their Nobel Prize for the discovery of the double helix, MIT professor Ascher Shapiro, an

expert in fluid mechanics, set up an elaborate test to try to change that. Shapiro's elementary experiment, which started with a bathtub, quickly turned into a complicated and ambitious undertaking that involved a tank six feet wide and six inches deep.

The Coriolis effect at MIT's latitude, 42°, was just "thirty-millionths that of gravity, which is so small that it will be overcome by filling and even temperature differences and water impurities," reported one of many newspapers and periodicals that covered the results of Shapiro's experiment. After much tinkering to cancel out these interferences, and presumably a hefty water bill, Shapiro found the answer: the Coriolis effect does indeed cause a bathtub vortex in the northern hemisphere to swirl counterclockwise.

But even after his results were published in a letter to Nature, Shapiro's confirmation drew the skepticism of readers. In correspondence with one reader, Shapiro noted: "Many results contradictory to this have been reported in the literature but all of them have involved faulty experiments due to a lack of realization of how sensitive the experiment is." He was supported, however, by colleagues in the Northern hemisphere who confirmed the counterclockwise bathtub drainage, while those in the Southern hemisphere demonstrated the same effect in the opposite direction—a clockwise flow—just as anticipated.

In a world without electronic communication, where author correspondence was a more prolonged affair, a sort of chivalry existed between a scientist and a popular audience who took an interest in academics. Scrawled with a pencil on back-and-forth correspondences between Shapiro and his fans and housed today within a dusty and faded folder in the MIT archives are the records of reprints being sent, of questions being answered, and of careful and nuanced responses that understated Shapiro's high standing at MIT. A Ford Professor at the time, and later elevated to Institute professor, Shapiro took time to send article reprints for those who asked for

it and to answer mail from inquisitive readers, some of whom promoted dubious questions and claims.

Who would have thought the swirl of a bathtub would have been a matter of great interest? For a seemingly insignificant problem, the bathtub controversy loomed large in Shapiro's career until his death in 2004. The first line of his obituary in the Boston Globe read: "Dr. Ascher Shapiro wanted to get a handle on how fluids move whether they were swirling down the bathtub drain, or flowing through the human body."

Controversy because other researchers were getting different and inconsistent results. Shapiro claimed that he could perform the experiment and that all other researchers were wrong.

The below shows that even with extreme care the direction of the vortex can be influenced by very small perturbations such as how the lid is lifted.

"At Tom Fink's invitation, Professor Lloyd M. Trefethen of Tufts University, USA, spent a short sabbatical in Mechanical Engineering in 1964/65. Already famous for his work on surface tension phenomena, he led us into a repeat of the experiments on the bathtub vortex that had recently been conducted by Ascher Shapiro at MIT. After much careful design, a circular tank of some 2.4m in diameter and 0.4m depth was constructed and installed in one of the subterranean dungeons of the old Peter Nicol Russell building. Carefully designed procedures and their diligent execution resulted in absolutely conclusive results that were published in Nature (Trefethen, et al, 1965). A re-enactment for the local media was a disaster: Bilger and Tanner muffed the removal of the covering baffles creating a great vortex in the water that then went out the wrong way. 'Scientists baffled' cried the media. We even made Time magazine!"

When the lid was removed the 'right' way a 'correct' direction occurred and when the lid was removed in a 'wrong' way an 'incorrect' direction occurred.

In Flow, Nature's Patterns, a Tapestry in Three Parts (Archive) by Dr. Phillip Ball (Bio) the author gives an overview on p. 47:

"A popular notion says that the rotation of the earth starts the bathtub vortex spinning. But while it is certainly true that this rotation controls the direction of the giant atmospheric vortices of cyclones, which rotate counter-clockwise in the Northern Hemisphere and clockwise in the Southern, the influence of the Earth's rotation on a micro-cyclone in the bath should be extremely weak. Biesel claimed that it cannot be responsible for the bathtub vortex because, contrary to popular belief, they may rotate in either direction at any place on the planet. But is that really so? In 1962 the American engineer Ascher Shapiro at the Massachusetts Institute of Technology claimed that he had consistently produced counter-clockwise vortices in his lab by first allowing the water to settle for 24 hours, dissipating any residual rotational motion, before pulling the plug. The claim sparked controversy: later researchers said that the experiment was extremely sensitive to the precise conditions in which it was conducted. The dispute has never quite been resolved. We do know, however, why a small initial rotation of the liquid develops into a robust vortex. This is due to the movement of the water as it converges on the outlet. In theory this convergence can be completely symmetrical: water moves inwards to the plughole from all directions. But the slightest departure from that symmetrical situation, which could happen at random, may be amplified because of the way fluid flow operates."

An abstract

Archivehttps://web.archive.org/web/20211009172536/https://journals.jps.jp/doi/10.1143/JPSJ.81.074401]) at the Physical Society of Japan states:

"It has long been controversial whether the Coriolis force due to the rotation of the earth plays a significant role in the generation of the bathtub vortex in small vessels such as bathtubs. "

Shape of the Drain

Many sources maintain that the shape of the container and the drain plays more of a role in the direction of the water than the alleged 'Coriolis Effect'.

Sorry, Wrong Answer: Trivia Questions That Even Know-It-Alls Get Wrong by Rod L. Evans Ph.D.

"Some misconceptions are so common that they are embraced by even cartoon characters. For example, in a particularly popular episode of The Simpsons, "Bart. vs Australia," Lisa tells Bart that toilets in the Northern Hemisphere (including America) drain counterclockwise, whereas those in the Southern Hemisphere drain clockwise. Lisa's confusion stems from misunderstanding the Coriolis Effect, the inertial force that deflects objects moving above the Earth--rightward in the Northern Hemisphere and leftward in the Southern Hemisphere (including Australia). Bart Simpson doesn't accept Lisa's conclusions, calls up Australians to find the truth about their toilers, and manages to create a diplomatic incident. Factually it was Lisa, however, who was mistaken. Australian toilets flush in the same direction as toilets in the Northern Hemisphere. Although the Coriolis Effect can and does influence large bodies of water and air masses in the atmosphere, its influence on the direction of tiny quantities of water in a sink or a toilet bowl is negligible compared to the effect of the shape of receptacles and the direction of flow from which they were filled. "

Earth Science: Semester 1

"…water draining in sinks, tubs, or toilets DOES NOT rotate according to the Coriolis effect. The water drains based only on how the water is poured or the shape of the drain."

"Many people think the Coriolis effect makes water in baths and sinks drain in different ways - anti-clockwise in the Northern hemisphere and clockwise in the Southern hemisphere. However, baths and sinks are too small to be affected and the direction that the water drains is more likely to be caused by the shape of the sink or the bath, the slope of the floor and the shape of the drain. "

A Student's Guide to Earth Science

"The direction that water spins as it goes down the drain is due to the shape of the bathtub or sink--not to the Coriolis effect."

Thomas Humphrey, a senior scientist at the San Francisco Exploratorium, says:

"It is impossible to find a cup full of water that does not have some average net motion; it will always be going one way or the other, and that little amount of angular motion is enough to swamp the Coriolis effect. The net motion in the water becomes much more pronounced as the water is forced to move in toward the center of evacuation, causing the normally invisible flows in the water to become visible as the water nears the drain. The ultimate direction of that flow is random--it can go one **way one time, the other way the next. "**

Veritasium and Smarter Every Day Experiment

A popular video Does Water Swirl the Other Way in the Southern Hemisphere? claims to demonstrate the rotation of the earth with a drain

experiment. A kiddie pool was drained, concluding that the result was due to the rotation of the earth.

Meteorologist Tom Di Liberto at American Scientist goes over the history of the water swirl controversy and explains that this video is not sufficient confirmation of the earth's rotation: "All things being equal, if you make sure that the water is motionless and no other forces are introduced during the process, Coriolis would be the big winner in the battle royal of forces acting on the liquid draining from that kiddie pool. And for Muller and Sandlin, it worked! They tried their experiment three times in each hemisphere. In each case the water rotated clockwise in the southern hemisphere and counterclockwise in the northern hemisphere.

Well, not so fast. The YouTube experiments were actually based on previous ones done in a laboratory setting. In those highly controlled settings, scientists at MIT in the 1960s were able to show that Coriolis could work on a draining tub. In fact, I have been told that graduate students at MIT still do this experiment today in one of their classes. The major difference between the past examples and the current YouTube version is that one was done in a lab with a fine control over outside forces and the other uses a kiddie pool set up on a plywood platform in a garage or sheltered patio. In the video experiments any number of things may have introduced an outside force that could swamp the comparatively tiny influence from the Earth's rotation. Temperature differences in the water could create currents; tiny bumps in the texture of the kiddie pool or plywood could guide the flow; the way the valve released the water could steer the movement; and, especially for the outdoor experiment, a slight breeze could push the water along. A systematic error could have led to the same consistent results seen in the videos.

This is not to say these YouTube experiments did not work. It's just that a lot of other things could have affected the results besides the Earth's rotation. Of course, regular folks do not have access to the type of laboratories and equipment needed to control for all other factors and allow

the Earth's rotation to determine the outcome. And part of the purpose of these videos is to show viewers an experiment they can recreate on their own.

Maintaining that degree of accessibility while satisfying skeptics like me would involve putting together a larger sample size of experiments similar to the ones made by Muller and Sandlin, done in different locations across both hemispheres. Then we could get a better idea of whether the setup shown in "The Truth about Toilet Swirl" did in fact allow the Coriolis effect to shine. Until then, I'll remain unconvinced that what we saw truly resulted from the Coriolis effect.

Ultimately, of course, this is nitpicking. The videos were educational, and the explanation of what the Coriolis effect means for air or water moving on Earth was on the money, regardless of whether I completely accept the experiment's setup.

Therefore, I guess the only thing left to do is to assemble an army of kiddie-pool Coriolis experimenters to figure this out once and for all. If you bring the pool, I'll supply the water (void in California). The Earth will provide the spin. "

D. S. Parasnis

Professor Parasnis of the University of Lulea, author of Principles of Applied Geophysics, wrote to New Scientist to inform them of the following:

Letters: In a spin By D. S. Parasnis

"It is indeed surprising that the myth of a discernible Coriolis force effect on the water in a bath tub persists. Apart from the weakness of the force pointed out in the editorial, the myth was experimentally examined in 1965 by L. M. Trefethen et al in an extremely careful experiment and found

to have no basis ('The bath-tub vortex in the southern hemisphere', Nature, vol 207, p 1085)."

D. S. Parasnis University of Lulea, Sweden

Large Scale Water Currents

We find the assertion that large scale water currents rotate in accordance with the "Coriolis Effect" to be untrue. See Coriolis Effect (Weather)

Wind Currents

We find the assertion that the wind currents generally rotate in accordance with the "Coriolis Effect" to be untrue. See Coriolis Effect (Weather)

Addendum

Many of these discussions are often put to an end after a simple request of evidence. 'Mountains' of evidence are claimed to exist for phenomena such as this, yet when the Round Earth proponent is questioned in a simple and polite manner on the necessary demonstration, we find that the response is generally, to any reasonable standard, woefully insufficient. Data should surely exist in which an experiment is repeated again and again by science investigators with the same result, rather than sparse references to singular instances in which a correct rotation or event occurred. It is quite curious that this effect cannot be clearly demonstrated, and is so easily defeated with such simple questioning, despite our opponent's access to the vast collection of human knowledge that is the internet.

--https://wiki.tfes.org/Coriolis_Effect

Ring Laser Gyroscope

The Ring Laser Gyroscope (RLG) is a consumer device version of the Michelson-Gale-Pearson Experiment (MGP). The principle of operation of these devices is based on the Sagnac Effect, which was famed for showing that light changes velocity on a rotating platform. In the RLG and MGP experiment the Earth is used as the 'rotating platform'. Like with the Michelson-Gale-Pearson Experiment, some have alleged that Ring Laser Gyroscopes have detected the rotation of the earth.

From a work titled The Sagnac and Michelson-Gale-Pearson Experiments (Archive) by Dr. Paulo N. Correa we read on p.5:

"The outcome of the MGP experiment was ambiguous, though maybe no more ambiguous than the small persistent positive shift observed in MM experiments. Composed of 269 separate tests with readings that varied from -0.04 to +0.55 of a fringe, and a mean at +0.26 fringes, the MGP experiment could be interpreted to yield a positive result of ≈ 0.3 km/s - therefore near the speed of the earth's rotation, but the result was of borderline significance. It could be said that the experiment was inconclusive because it adduced neither confirmation that there was a shift in the phase of the light beams, nor that there wasn't one. "

Essentially the tests saw wild results. There was almost no change to light's velocity in one test, and then a lot of change in another test. It is perplexing that the rotation of the earth would start and stop when tested at different times. Only through the statistics was it claimed that the experiment saw the rotation of the earth. The inconsistent results were ambiguous in nature and could offer no evidence of the shift in the phase of the light beams. As stated above, the results of the Michelson-Gale-Pearson experiment were inconsistent and an algorithm was applied to get the desired

result. If we are to say that the Ring Laser Gyroscope is the same device, then the same criticism would apply.

It is further seen that, like the original MGP experiment, the raw results of the gyroscopes are inconsistent and dwarf the results from rotation. The device is affected by effects which are not the rotation of the Earth. If there are effects from unknown sources in the experiment and the desired effect must be pulled out with statistics, then one may suggest that it is not possible to indicate which effect comes from what phenomena. It could be an oscillation from another diurnal phenomena which is a Ring Interferometer

Ring Laser Gyroscope Measurement of Absolute Earth Rotation: Honeywell Ring Laser Gyro

From a paper titled Performance Evaluation of the Honeywell GG1308 Miniature Ring Laser Gyroscope (Archive) we find raw data (RLG Counts) which includes the Earth rate:

"Figure 2-2 shows graphical representations of typical raw gyro outputs. The family of graphs (a) thru (e) illustrate the RLG counts and analog parameters for a bias drift test that includes local Earth rate with strobing at a nominal 10 seconds. The initial part of the traces show the RLG turn-on transient with a RLG Count settling time of approximately one minute. One should note that it takes more than five minutes for the temperature and the PLC controller to settle. Three PLC shifts occur during this turn-on temperature transient. Even though the RLG fixture is temperature controlled to better than 0.1 0C it is shown in Fig. 2-2e that after turn-on the internal temperature of the RLG rises by 4 to 4.5 0 C before settling out. "

MEMS Gyroscope

Similarly, raw data from Section 4.1 of a paper titled Measuring the Earth's Rotation Rate Using a Low-Cost MEMS Gyroscope (Archive), which

uses another kind of gyroscope to detect the Earth's rotation, shows that the raw data is inconsistent and noisy. The Earth's rotation is pulled out of noise.

"During the measurements the gyroscope was stationary on the floor. Its positive sensitive axis was parallel to the local horizontal plane. Total data collection time of the experiment spans to approximately 61 hours. The raw data collected directly from the sensor is shown in Figure 2 as a function of time. "

MEMS Gyro Raw

If one were to directly conclude that the movement is due to the rotation of the earth, one would also have to conclude that much of the data involves the earth 'spinning' backwards from its supposed direction. In truth, the noise seen is caused by other effects which are not the earth's rotation, subverting the results. Only through noise analysis is the Earth's rotation interpreted and pulled out with an algorithm. It is through the interpretation of noise that the Earth's rotation is found.

Addendum

According to the RE interpretation the earth is rotating and giving consistent results. There are other secondary mechanisms modifying and dominating those results. Due to the range seen, these secondary mechanisms are also somehow related to the speed of the Earth's rotation. It is from these mysterious mechanisms that the rotation of the earth is indirectly pulled out of the noise with an algorithm.

Alternatively, we may interpret this as one mechanism which is creating that range of results, and which is related to the diurnal period of the sun, tides, or celestial bodies which move over the earth. Should it be unreasonable that a very sensitive device can detect a background oscillation of the world in the noise it detects? Whether the responsible mechanism is seismic, pressure, or 'Aether' related, we know by the direct evidence of

inconsistency that the results are modifiable by a mechanism present in the experiment which is not the rotation of the earth. If it is modifiable then it is also entirely creatable.

We should ponder whether an inconsistent experiment has ever been a confirmation of anything in science. As the experiment is tainted by uncontrolled and unmitigated effects which drastically affects the device, one can only conclude that it is unclear as to what is being measured, what effects are involved, and whether there is even a constant baseline beneath it all; negating any statistical conclusions and thus demonstrating that the device is not decisive evidence for the rotation of the Earth.

Next: RLG Seismology

While inconsistent experiments are typically invalid as demonstration of any particular cause, one potential contributor of the noise in these very sensitive devices is the seismic disturbance inherent in the background environment. Unlike earth rotation, seismic disturbance is not a constant phenomenon.

--https://wiki.tfes.org/Ring_Laser_Gyroscope

Special Relativity: Departure from Empirical Science

Special relativity was invented to make sure all these experiments still gave Heliocentric theory a chance of being correct. It needed objects to shrink to a specific size in direct proportion to its speed. These objects weren't measured! The concept had never been observed at all. It was metaphysical only. But it had to be correct, otherwise the unthinkable would be true We live on a flat, non-rotating plane.

The rescue operation was performed by means of a purely metaphysical concept lifted directly from Professors Fitzgerald and Lorentz, who had also been trying to explain the results of the Michelson-Morley experiment, and renamed by him the Special Theory of Relativity. What was suggested was that if the dimensions of an object in motion were assumed to shrink exactly in proportion to the speed at which it was traveling by exactly the necessary amount, mathematical calculations could be made to show that the Earth was in motion after all. No one has ever seen an object shrink as a result of being in motion, and indeed one of the world's leading authorities on relativity, Dr. Herbert Dingle, was later to dismiss the theory of relativity as metaphysical nonsense with no basis on what could be observed.

Making up a new branch of mathematics to explain the results of experiments that disagrees with your worldview does not a confirmation make! As a J.J. Thomson once said:

"We have Einstein's space, de Sitter's space, expanding universes, contracting universes, vibrating universes, mysterious universes. In fact the pure mathematician may create universes just by writing down an equation, and indeed if he is an individualist he can have a universe of his own."

However, when you make stuff up not based on anything in the real world, it is bound to run into trouble. Ironically, when Special Relativity failed due to its internal contradictions, Einstein had to invent General Relativity to shore up the façade, and in the process he had to take back the very two foundations he had discarded in Special Relativity, namely, (a) that nothing can exceed the speed of light and (b) the existence of Aether. In the end, Einstein's theories were a mass of contradictions which are covered over by obtuse mathematical equations.

-- http://www.wildheretic.com/heliocentric-theory-is-wrong-pt1/

Special Relativity Refutes Itself

Physics Close To The Speed Of Light

Special relativity, developed by Albert Einstein, applies to situations where objects are moving very quickly, at speeds near the speed of light. Generally, you should account for relativistic effects when speeds are higher than 1 / 10th of the speed of light.

Relativity produces very surprising results. We have no experience dealing with objects traveling at such high speeds, so perhaps it shouldn't be too surprising that we get surprising results. These are a few of the things that happen at relativistic speeds:

- Moving clocks run slow.
- Lengths contract when traveling at high speeds.
- Two events that occur simultaneously for one observer are not simultaneous for another observer in a different frame of reference if the events take place in different locations.

That might sound very odd, but it only sounds odd because we don't see these effects in our daily lives.

The Ghostly Hall of Mirrors of Special Relativity: Frames of Reference

Everything is relative; it depends on your frame of reference. Different observers see different things if they are in different reference frames (i.e., they are moving relative to each other). Special relativity deals with observers moving at constant velocity; this is a lot easier than general relativity, in which observers can accelerate with respect to each other. Note that frames of reference where the velocity is constant are known is inertial frames.

The end result is a kind of hall of mirrors where everything is distorted by the interplay of space and time, a kind of warping of reality where nothing is grounded or absolute.

Postulates of Special Relativity

Relativity is based on two very simple ideas; everything else follows from these. These are:

1. The relativity postulate : the laws of physics apply in every inertial reference frame.
2. The speed of light postulate : The speed of light in vacuum is the same for any inertial reference frame (c = 3.00 x 108 m/s). This is true no matter how fast a light source is moving relative to an observer.

Time Dilation Hocus Pocus Nonsense

Time dilation refers to the fact that clocks moving at close to the speed of light run slow. Consider two observers, each holding an identical clock. These clocks work using pulses of light. An emitter bounces light off a mirror, and the reflected pulse is picked up by a detector next to the emitter. Every time a pulse is detected, a new pulse is sent out. So, the clock measures time by counting the number of pulses received; the interval between pulses is the time it takes for a pulse to travel to the mirror and back.

If our two observers are stationary relative to each other, they measure the same time. If they are moving at constant velocity relative to each other, however, they measure different times. As an example, let's say one observer stays on the Earth, and the other goes off in a spaceship to a planet 9.5 light years away. If the spaceship travels at a speed of 0.95 c (95% of the speed of light), the observer on Earth measures a time of 10 years for the trip.

The person on the spaceship, however, measures a much shorter time for the trip. In fact, the time they measure is known as the proper time. The time interval being measured is the time between two events; first, when the spaceship leaves Earth, and second, when the spaceship arrives at the planet. The observer on the spaceship is present at both locations, so they measure the proper time. All observers moving relative to this observer measure a longer time, given by:

$$\text{time dilation : } \Delta t = \Delta t_0 / [1 - v^2 / c^2]^{1/2} \qquad \text{where } \Delta t_0 \text{ is the proper time.}$$

In this case we can use this equation to get the proper time, the time measured for the trip by the observer on the spaceship:

$$\Delta t_0 = \Delta t \, [1 - v^2 / c^2]^{1/2} = 10 \, [1 - 0.95^2]^{1/2} = 3.122 \text{ years}$$

So, allegedly, during the trip the observer on Earth ages 10 years. Anyone on the spaceship only ages 3.122 years.

Problem With Time Dilation

It is very easy to get confused about who's measuring the proper time. Generally, it's the observer who's present at both the start and end who measures the proper time, and in this case that's the person on the spaceship. But, ultimately, since Special Relativity states that all movement is relative, you cannot ever determine who is experiencing Time Dilation, and therefore the entire thought experiment devours itself. Everything is relative; it depends on your frame of reference. Different observers see different things if they are in different reference frames (i.e., they are moving relative to each other). Is the spaceship traveler not aging, as fast as the Earth bound person or is the Earth bound person getting older at an accelerated rate, relative to the Spaceship traveler ? Further, since all Earth bound people are not in the spaceship, they may all be said to be aging at an accelerated rate relative to the spaceship traveler. All of it become nonsensical mumbo jumbo.

The Unfalsifiable Claims of Theoretical Special Relativity

Further, nobody can even test Special Relativity. No person can go the speed of light to test it. It is just a silly thought experiment that has no bearing on real experience at all. -- http://physics.bu.edu/py106/notes/Relativity.html

Thought Experiment Disconfirm Special Relativity

Suppose there are two observers: A and B. They have a constant speed relative to each other. Each person has a clock with him, and thus the position of each observer is clearly known by the other observer in his

reference frame. Now observer A wants to know the time of clock B. For example, at 3 o'clock of clock A, observer A sends the image of clock A to observer B. When observer B receives the image, he will immediately send the image of clock B back to observe A. According to special relativity, observer B should see that the time shown on the image of clock A (3 o'clock) earlier than the time of clock B (for example 3:15) minus the time for the image to travel from A to B (for example 10 minutes calculated by the position of clock B in the reference frame of observer A divided by constant c, the speed of light) because of time dilation. In the reference frame of observer A, the distance from A to B is the same as the distance from B to A because observer B receives the image of clock A and sends the image of clock B at the same time. Thus, observer A will receive the image of clock B at 3:20. Deducted by the time for the image of clock B traveling from B to A (10 minutes), clock A should be 3:10 when observer B sends the image of clock B back to A, earlier than the time (3:15) shown on the image of clock B. That is, clock B is faster than clock A observed by both observers, contradicting the prediction of special relativity that observer A should see that clock B slower than clock A.

The clock time is absolute while relativistic time is simply an artificial time irrelevant to clock time. If you use clock time as relativistic time, you will immediately get a contradiction.

https://www.researchgate.net/post/Does_this_thought_experiment_disconfirm_special_relativity

Contradictions and Mathematics

Mathematics cannot deal with contradiction. On the contrary it leads one along a tunnel of conformity, causality, consistency, determinism, continuity etc.; the only thing that is required is allegiance to the axioms, premises, postulates etc... Idealized and theoretical mathematics, as is found

in Special Relativity, and particularly the analytic functions, are particularly suited for idealist propositions and not practical applications.

https://www.researchgate.net/post/Is_Any_Effective_Refutation_of_Einsteins_Theories_of_Relativity_Possible

Time: Einstein, Hume, and The Philosophy of Time

In 1915, Albert Einstein wrote a letter to the philosopher and physicist Moritz Schlick, who had recently composed an article on the theory of relativity. Einstein praised it: 'From the philosophical perspective, nothing nearly as clear seems to have been written on the topic.' Then he went on to express his intellectual debt to 'Hume, whose Treatise of Human Nature I had studied avidly and with admiration shortly before discovering the theory of relativity. It is very possible that without these philosophical studies I would not have arrived at the solution.'

More than 30 years later, his opinion hadn't changed, as he recounted in a letter to his friend, the engineer Michele Besso: 'In so far as I can be aware, the immediate influence of D Hume on me was greater. I read him with Konrad Habicht and Solovine in Bern.' We know that Einstein studied Hume's Treatise (1738-40) in a reading circle with the mathematician Conrad Habicht and the philosophy student Maurice Solovine around 1902-03. This was in the process of devising the special theory of relativity, which Einstein eventually published in 1905. It is not clear, however, what it was in Hume's philosophy that Einstein found useful to his physics. We should therefore take a closer look.

In Einstein's autobiographical writing from 1949, he expands on how Hume helped him formulate the theory of special relativity. It was necessary to reject the erroneous 'axiom of the absolute character of time, viz, simultaneity', since the assumption of absolute simultaneity unrecognizably

was anchored in the unconscious. Clearly to recognize this axiom and its arbitrary character really implies already the solution of the problem. The type of critical reasoning required for the discovery of this central point [the denial of absolute time, that is, the denial of absolute simultaneity] was decisively furthered, in my case, especially by the reading of David Hume's and Ernst Mach's philosophical writings.

In the view of John D Norton, professor of the history and philosophy of science at the University of Pittsburgh, Einstein learned an empiricist theory of concepts from Hume (and plausibly from Mach and the positivist tradition). He then implemented concept empiricism in his argument for the relativity of simultaneity. The result is that different observers will not agree whether two events are simultaneous or not. Take the openings of two windows, a living room window and a kitchen window. There is no absolute fact to the matter of whether the living room window opens before the kitchen window, or whether they open simultaneously or in reverse order. The temporal order of such events is observer-dependent; it is relative to the designated frame of reference.

The Relativity Of Simultaneity

Once the relativity of simultaneity was established, Einstein was able to reconcile the seemingly irreconcilable aspects of his theory, the principle of relativity and the light postulate. This conclusion required abandoning the view that there is such a thing as an unobservable time that grounds temporal order. This is the view that Einstein got from Hume.

Hume's influence on intellectual culture is massive. This includes all areas of philosophy and a variety of scientific disciplines. A poll conducted with professional philosophers a few years ago asked them to name the philosopher, no longer living, with whom they most identify. Hume won, by a clear margin. In Julian Baggini's estimation, contemporary 'scientists, who often have little time for philosophy, often make an exception for Hume'. Before saying more about Hume's permanent relevance, we should go back

to the 18th-century early modern context. His influence is due to his radical empiricism, which can't be fully understood without examining the era in which he worked.

The dominant theory of cognition of early modern philosophy was idea theory. Ideas denote both mental states and the material of our thinking. A mental state is, for example, a toothache, and the material of our thinking are thoughts, for example, of a mathematical object such as a triangle. The clearest proponent of the theory of ideas was the French philosopher René Descartes, for whom philosophical enquiry is essentially an investigation of the mind's ideas. In one of his letters, he explains why ideas are so important: 'I am certain that I can have no knowledge of what is outside me except by means of the ideas I have within me.' If we wish to gain any certainty in our investigations of any aspect of the world – whether the object of our investigation is the human mind or some natural phenomenon – we need to have a clear and distinct idea of the represented object in question.

Ideas Arise First With Perception

Hume's theory of ideas differs from Descartes's because he rejects innatism. This view goes back to Plato's doctrine of anamnesis, which maintains that all learning is a form of recollection as everything we learn is in us before we are taught. The early modern version of innatism emphasizes that the mind is not a blank slate, but we are equipped with some ideas before our birth and sensory perception. Hume starts at the same point as his fellow Briton and predecessor, John Locke. The mind begins to have ideas when it begins to perceive. To ask when a human being acquires ideas in the first place 'is to ask when he begins to perceive; having ideas and perception being the same thing,' writes Locke in An Essay Concerning Human Understanding (1689). Drawing on this insight, Hume devised his copy principle.

The Copy Principle

Perception, for Hume, is divided into ideas and impressions. The difference between the two is a difference of degree, not kind. Impressions

are more forceful and lively than ideas. For instance, I remember that as a kid I put my finger on our living room's fireplace window. When I had my finger on the glass, I felt pain (impression), and now I have a recollection of that perception (idea). All simple ideas resemble some simple impressions. Ideas are copies of impressions. If any term is to be meaningful, it needs to be attached to an impression-based idea. In his later work An Enquiry Concerning Human Understanding (1748), Hume proposed to use his copy principle as a cognitive test that would 'banish all that jargon, which has so long taken possession of metaphysical reasonings, and drawn disgrace upon them'. This is how the principle should be applied:

When we entertain, therefore, any suspicion, that a philosophical term is employed without any meaning or idea (as is but too frequent), we need but enquire, from what impression is that supposed idea derived? And if it be impossible to assign any, this will serve to confirm our suspicion.

The Idea Of Time By Perceiving Change

Can we annex the term 'absolute time' to some impression-based idea? Here we can already see 'the type of critical reasoning required' for the discovery of special relativity that Einstein talks about. The copy principle is important for understanding Hume's philosophy of time. How do we acquire the idea of time in the first place? He presents his argument in the second part of the first Book of his Treatise, where he submits that we get the idea of time by perceiving change. It 'can never be conveyed to the mind by anything steadfast and unchangeable', Hume writes. **Change is observable either in the succession of objects or in their relative motions**. A good example of succession is the sequence of musical chords. We do not get time's idea from a single ongoing chord. Instead, there must be a succession: chord, pause, chord, a different chord, and so on. Another source for the idea of time is observable relative motion. **Perceiving motion causes an idea of time because 'every moment were distinguished by a different position' of the moving object.**

Time, as it appears to us, is made of indivisible moments that are parts of succession. In the interpretation offered by the philosopher Donald L M Baxter in Hume's Difficulty (2007), a single moment cannot have a duration. Something counts as a duration only if it is a temporal complex. **We must perceive a change with respect to moments; otherwise we could not abstract the idea of time.** There is an analogy that I have suggested earlier for understanding Hume's reasoning on this matter. Imagine a stationary observer in front of a huge grey wall. The wall is evenly painted, and it covers the observer's whole visual field. In this scenario, there is nothing changing in front of her. The wall is a steadfast object. It has no duration. Such an unchangeable object cannot be the source for the idea of time alone. Now, if something is changing, like a blue object moving in front of the wall, then the observer will be able to acquire the idea of time through the object's change of place. Although the wall is a steadfast object, the moving item is not. When it is moving, it is changing its location with respect to the observer. However, this change is relative to the observer's viewpoint. If the observer would be moving together with the object at the same relative velocity, there would be no change and therefore no duration in her viewpoint.

Special Relativity Comes From Einstein's Understanding of Time From David Hume

Hume's philosophy of time shows the fundamental relevance of the relation between an observer and a reference object. There is no evidence for absolute, self-existing time. Nor is there evidence for one universal time. There are different times, depending on the observer/reference-object relation. It is not 'possible for time alone ever to make its appearance', as 'time is nothing but the manner, in which some real objects exist,' writes Hume. Based on this dictum, in his 2007 biography of Einstein, Walter Isaacson alludes that Hume's rejection of absolute/universal time 'would later echo in Einstein's theory of relativity'.

Newtonian Absolute Time

Hume's empiricist notion of time stands in contrast to influential pre-relativity accounts of time. Take Isaac Newton's concept of time in his classical dynamics. He argues for absolute time in his monumental Principia: Mathematical Principles of Natural Philosophy (1687). In the context of the argument, Newton claims that the quantity of time (along with space, place and motion) is 'popularly conceived solely with reference to the objects of sense perception'. Then he goes on to distinguish between absolute, mathematical time and relative, measurable time, like clock time. Absolute time exists substantially by itself. Its existence is independent of change. Whatever physical there is in the Universe, and however it moves, it does not have an influence on time itself. Time has a definite structure: it flows equally and unidirectionally. Consequently, the time difference between two simultaneous events is zero, and the time difference between two successive events is not zero. Everyone would agree on this, according to Newton. Temporal order and direction is grounded in time itself.

Initially, it might seem that Newton is committed to some dubious metaphysical speculation by assuming utterly unobservable entities. The philosopher Tim Maudlin notes in Philosophy of Physics (2012) that Newton's position is, to the contrary, perfectly intuitive:

It sounds as if Newton is postulating some weird, ghostly, unfamiliar entities, but most people conceive of the physical world in terms of absolute space and time. For example, craftsmen and scientists continually try to improve the design of timepieces, to produce clocks that are ever more accurate and precise. But what is it for a clock to be 'accurate'? What we want is for the successive ticks of the clock to occur at equal intervals of time, or for the second hand of a watch to sweep out its circle at a constant rate. But 'equal' or 'constant' with respect to what? With respect to the passage of time itself, that is, with respect to absolute time.

Kant's A Priori Transcendental Time: Our Minds Impose The Temporal Order We Experience

Another highly influential view of time that differs from Hume's is embodied in Immanuel Kant's transcendental idealism. Kant presents this argument in his major work, Critique of Pure Reason (1781). Here, he clearly criticizes Newton's position, according to which time exists by itself. According to Adrian Bardon in A Brief History of the Philosophy of Time (2013), Kant focuses on the adverbial use of the concept of time, not on its substantive use. This means that we experience things temporally, not in time. Time is not a thing in itself; it is a subjective human precondition. In Kantian terminology, time is an a priori form of sensibility. Kant doesn't think that time is an innate idea. Rather, our minds impose the temporal order we experience. He puts the point as follows:

Time is not an empirical concept that is somehow drawn from an experience. For simultaneity and succession would not themselves come into perception if the representation of time did not ground them a priori. Only under its presupposition can one represent that several things exist at one and the same time (simultaneously) or in different times (successively).

Einstein Rejects Newtonian and Kantian Temporal Absoluteness

It is stunning how Humean Einstein is in his opposition to Newton and Kant. The application of concept empiricism gave Einstein the means to discard the absolutist and transcendental arguments. Postulating that light's speed is the same in all directions, the empiricist argument destroys absolute simultaneity. There is no time itself that exists independently of the selection of the frame of reference, as Newton has it. And time is not grounded in human intuition, because it is an empirical concept, unlike how Kant thought. Hume would very much nod to this conclusion. Absolutist argument invokes an utterly imperceptible structure of time, and the transcendental argument leans on a priori factors of cognition. The copy principle rules out both. For Hume as for Einstein, time is an empirical concept.

However, the Hume-Einstein connection should not be exaggerated. It would be wrong to say that Hume anticipated the scientific theory of relativity. There is simply no way that he could have predicted it. The theory was a product of an industrialized society that emerged after he wrote his Treatise. Einstein's original paper, 'On the Electrodynamics of Moving Bodies' (1905), was the result of critical reflection of the 19th-century electromagnetic physics, as encoded in Maxwell's equations.

The opening section of the original publication concerns Michael Faraday's law of electromagnetic induction. Einstein presents a thought experiment with a magnet and a coil, by which he extends the principle of relativity to electrodynamics. Consequently, absolute electric fields, as well as absolute quantities of time and space, had to be relativized. Moreover, in the definition of simultaneity in the original publication, Einstein focuses on clock synchronization. Along with electromagnetic induction, which is of the utmost importance in energy production, the synchronization of clocks is also very much an aspect of the industrialized society: the 19th century saw an increase of train traffic that required considerable improvements of timekeeping. None of this could have been known to Hume.

Yet there is still something profoundly intriguing about Hume's views. He did envisage a philosophy of time that is consistent with the relativity theory, and his critical reflection enabled him to articulate a view very much against common sense. This is what special relativity also did. The ramifications of abjuring absolute and universal time are astonishing. Due to time dilation, a parent can be younger than their child. Many philosophers have argued that relativity is consistent with an eternalist and static view of the world: the past, the present and the future are all equally real; there is no definite flow of time from earlier to later. Hume could not see the implications so specifically, of course, but he was conscious that his views on time were against the natural philosophical mainstream and the intuitions of an everyday conception of the world:

I know there are some who pretend that the idea of duration is applicable in a proper sense to objects, which are perfectly unchangeable; and this I take to be the common opinion of philosophers as well as of the vulgar.

Hume's Radical Empiricism: Sense Impressions Are All We Have

Because of his strict empiricism, Hume cannot accept the notion of time itself that is independent of change. There is no sensory evidence for universal, self-sustaining time that flows equably, no matter what: 'Ideas always represent the objects or impressions, from which they are derived, and can never without a fiction represent or be applied to any other.' As Baxter comments: 'There is no observable evidence that the structure of time is uniform across space.' This is very close to the kind of reasoning that pertains to Einstein's argument for the relativity of distant simultaneity.

Despite many contributions from Hume's side, there is a notable discrepancy between his views and the metaphysics required by relativity. This incongruity is related to skeptical doubts concerning metaphysical realism. Hume is usually taken to be an agnostic about the existence of mind-independent entities, such as objects, events and causal powers. In everyday life, he certainly believed in the continuous existence of a world-out-there. Here's the problem, though. The copy principle maintains that impressions cause our ideas. But what causes the impressions in the first place?

The event-realism in relativity is in tension with Hume's radical and skeptical empiricism

Hume is a radical empiricist and therefore agnostic on whether our impressions are caused by natural events that happen before and independent of our perceptions. In the third part of the first Book of the Treatise, he puts the point as follows:

"As to those impressions, which arise from the senses, their ultimate cause is, in my opinion, perfectly inexplicable by human reason, and 'twill always be impossible to decide with certainty, whether they arise immediately

from the object, or are produced by the creative power of the mind, or are derived from the author of our being. Nor is such a question any way material to our present purpose. We may draw inferences from the coherence of our perceptions, whether they be true or false; whether they represent nature justly, or be mere illusions of the senses."

Linguistic Descriptive Syntax Determines Reality

Our perceptions can be caused by mind-independent nature, by our minds themselves, or by God. This is a thoroughly skeptical remark: there is no way to tell which of the three – or perhaps more – options is the right one. In Hume's view, we cannot even think of reality itself, because we cannot form an idea of a thing in itself. This would be an object without any sensory qualities, something 'beyond the reach of human conception', he writes. As we don't have an idea of a self-existing reality, we don't have a reason to believe in it. This follows from what the Hume scholar Miren Boehm in 2013 called a 'No Reason to Believe' principle: if we are to believe in something, we must have its idea. We don't have the idea of an external reality. No matter how much we think about the problem, we cannot reason our way out of the skeptical challenge. And ideas are available to us only in as far as we may apply Linguistics to define an idea. Descriptive syntax or definitions determine what we perceive. If we cannot to define it by shape, form, textural attribute, color, etc…, we cannot say we perceive anything in time or otherwise.

How is the problem of metaphysical realism relevant to special relativity, and the philosophy of time? The theory requires that an event happens before and independent of it being observed. As all signals travel slower than or at the speed of light, the sending of the signal happens before the receiving of the signal. Although the corollaries of special relativity are mind-boggling, the theory is in this regard commonsensical. Think about an example like this. On New Year's Eve, I see a firework in the sky. There is a physical event, the explosion, in a space distant to me. Light and sound waves

propagate with finite velocities; it takes time before I receive information of the explosion. It must be that the event took place before my visual and auditory perceptions. If I didn't shoot the rocket or have anything to do with the causes that brought it up to the sky, it must be that the explosion happened entirely independent of me. Yet the explosion caused my visual and auditory impressions.

Einstein himself had deep sympathies with realist philosophy; so much that the indeterminacy of quantum mechanics was repugnant to him. The event-realism in relativity is in tension with Hume's radical and skeptical empiricism. One should allow a distinction between perceptions and physical events, and agree that our perceptions are caused by natural events that occur independently of us. Hume's rigidly empiricist stance does not countenance such a conclusion.

The Hume-Einstein connection is multifaceted, and raises fascinating connections between science and philosophy. When examining the nature of time, we enter a grey area in which physics and philosophy overlap. This is the proper field for natural philosophy, a combination of ambitious philosophical thinking and scientific acumen.

https://aeon.co/essays/what-albert-einstein-owes-to-david-humes-notion-of-time

Einsteinian Time and the Arbitrary Nature of Special Relativity

Ok, let's say that Hume had it right about time, and that there is no sensory evidence for a universal, absolute, self-sustaining time that flows equably. Perceiving motion causes an idea of change, and subsequent time because every moment is distinguished by a different position of the moving object. Time, as it appears to us, is therefore made of indivisible moments that are parts of a succession of moments. We must perceive a change with respect to moments; otherwise we could not abstract the idea of time, and

hence, time is relative to the perceiver upon a very real world that exist out there, beyond the ideas of the mind.

Here is where all this breaks down. In Hume and Einstein's world, Time is relative to a perceptual frame of reference, while contradictory, the physical world itself, is thought to be an **ABSOLUTE** entity that exists whether one perceives it or not. This is a gross contradiction that neither Hume nor Einstein can reconcile. If everything is relative, then surely the physical world, itself, is relative to the observer and is not some absolute real entity that exist independent of the observer. There is no observable evidence that the structure of the physical world is uniform across space, apart from individual sense data which comes from relative perceptual experience. Einstein's argument for the relativity of distant simultaneity falls apart here. If distant simultaneous events are relative and therefore malleable to individual sense perception, then physical reality itself cannot be assumed to be continuous and existent as uniform and absolutely independent of personal experience.

The Copenhagen Paradox

If we are to conclude that physical reality is relative and changes dependent and relative to the observer, in much the same way as The Copenhagen Interpretation of the Double Slit Experiment predicts, in an attempt to be constituent with Einstein's "all is relative' ideology, then we are to allow massive collapses in Time Dilation Theory, in that if both the Time Dilation frames of reference are relative, as well as Space frames of reference, and all of this is shifting based upon the observe, there is no way to predict or comment upon the age or position of any observer or traveler at any time in such a wildly chaotic matrix of ever changing frames. It is like being lost in the tessellation special effects scenes of Marvel's Dr. Strange where you never know where you are or what dimension you are flowing into or out of. You could never say someone is aging, more or less, because you have no Cartesian Spatial frame of reference from whence to even make a comment

about it. All you could do is invent blackboards of bizarre mathematics to talk about this nonsensical world, which is what we actually find in modern science:

MatheMAGICAL Spatial nonsense to talk about mystical Temporal nonsense and then passed off as theoretical physics.

Einstein and Hume Stride Two Worlds of Contradiction

And so, both David Hume and Einstein have one foot on the relative and the other foot on the absolute. They assert a relative Time where all simple ideas resemble some simple impressions, where ideas are copies of impressions based upon past experience of an absolute physical world. In other words, everything is relative except the physical world, which is an absolutely patent contradiction.

Everything is Relative, Which is an Absolute Statement

The most ridiculous thing about Einsteinian Relativity is that it states that everything is relative, which is an absolute statement and so at least one thing is not relative, that being the assertion that everything is relative…more paradoxical nonsense from Einstein.

Einstein's Need to Destroy The Absolute

As I have said before, Einsteinian Relativity is rooted in Kabbalistic Occultism, and the occult have a vested interest in restructuring reality, itself, to suit their own occult purposes. For this reason, they need to destroy any idea of an Absolute God or Absolute Reality and Order coming from God. Both Hume and Einstein are cut from the same Pantheistic, Anti-Christian cloth and as such, they both fall prey to the occult notions coming out of the Satanic tradition of Enlightenment philosophers trying to grapple with a paradigm of reality without any Absolute Law Giver or Absolute Morality. Special Relativity is merely another attempt to do away with any Absolute Order or Morality in the Universe and supplant it with a relativistic sliding scale of anything goes.

Relativistic Morality and Situational Ethics

The ultimate goal of the occult is to virtually destroy the world and reshape in their image. Relativity is the perfect poison to accomplish this task. With Relativity, there is no real order to anything but rather, merely paradoxical perceptual frame works that can be used to invent any kid of dimensional or temporal frame mutation you like. In Relativity, there are no moral absolutes, as well. Killing is perfectly acceptable as long as you can rationalize the reason for killing and also explain why you are authorized to kill in your perceptual framework or context. Situational Ethics are the new morality in relativistic realms of physics. Einstein was a Kabalistic Jew after all is said and done. He had no vested interest in supporting anything as absolute as Christian Morality or God's Divine Order or Laws.

Time Dilation by Latitude Fails to Confirm Earth Rotation

Time Dilation by Latitude refers to Albert Einstein's prediction that clocks would tick slower at the equator than at the poles.

From The Fascinating Life and Theory of Albert Einstein (Archive):

"In Einstein's original paper on the Special Theory of Relativity, "On the Electrodynamics of Moving Bodies", he mentioned a thought experiment using two identical clocks. One clock was placed on the equator and the other at one pole of the Earth. The clock on the equator had a faster speed then that at the pole due to the rotation of the Earth. He claimed that the clock on the equator would run slower than the one at the pole. "

Predicted by several authors at the turn of the 20th century, and later verified with various experiments, the phenomenon of time dilation due to velocity is a known phenomenon. Experiment such as the Hafele and Keating

Experiment showed that time dilates in on-board atomic clocks when two jets recede quickly away from each other.

NIST was able to show (Archive) that time dilation by velocity can be shown to occur at speeds comparable to 20 miles per hour:

"The NIST researchers also observed another aspect of relativity—that time passes more slowly when you move faster—at speeds comparable to a car travelling about 20 miles per hour, a more comprehensible scale than previous measurements made using jet aircraft."

It is reasoned that, since the Earth is rotating, time must also dilate according to the different latitudinal speeds of a rotating Earth. Precision clocks were not yet advanced enough to measure the effect at the time of Einstein's prediction, but with the advancement of atomic clocks over the years there have been efforts to use these technologies to measure and demonstrate this effect.

Professor Drake at the University of Adelaide explains that there is no time dilation between different latitudes. Professor Drake then proceeds to provide an explanation for the lack of time dilation. The paper is written in the form of Socratic dialog.

"**Kim:** Your lectures on special relativity fascinated me, and when I got home I wondered if I could construct a simple experiment to confirm or disconfirm time dilation, the aspect of special relativity that interests me the most. While lying in bed before dozing off, I realized that a clock placed at the equator should run slower than a clock placed at the pole. So I did a little calculation and found that special relativity predicts that a clock on the equator runs slower by about 100 ns per day with respect to a clock at the pole. Although this effect is not large, it is certainly measurable with modern atomic clocks. So I went onto the internet to see if I could find any reference to such an experiment and to my surprise I couldn't.

I was starting to get so frustrated that I couldn't sleep. I glanced at the clock - 3 am. I thought to myself "How accurate is my clock?" I should check it against internet time. Then it occurred to me that the world timing standard organizations must mention a latitude effect on local clock accuracies. So I went onto the internet again and checked The Bureau International des Poids et Mesures2 because the Bureau calculates the international atomic time from atomic clocks located in more than 30 countries around the world. I was sure that I must find something about the latitude effect on their web site. After spending hours trawling their site and then other sites on the web, I came up with nothing. There was a discussion of the relativistic effect of placing clocks at high altitudes, but nothing about latitude. In my despair I gave up and collapsed into a fitful sleep.

I came to see you today in the hope that you could cure my insomnia.

Sam: You are in good company in thinking that clocks at the equator and the pole should tick at different rates. Einstein himself predicted as much in his famous 1905 paper on the special theory of relativity.3 Luckily for physics the effect was not measurable with the instruments of the day because Einstein's prediction would have failed to match experiment.

Let us return to your findings:

According to the special theory of relativity a clock located at the equator should run slower than one at the pole and

Empirically, all clocks located at sea-level on the Earth's surface tick at the same rate, regardless of latitude."

Explanation

In order to explain the lack of this effect on a rotating Earth, Professor Drake goes on to explain that clocks tick the same rate by virtue of Einstein's Equivalence Principle:

"**Sam:** Suppose you are floating in a room with no windows or doors. All of a sudden, you feel a force that throws you against the wall. If there were two possible forces, gravitational and centrifugal, are you able to determine which force you are feeling?

The idea that you can't know if the force is a uniform gravitational force or a combination of uniform forces, is called the equivalence principle. What does it tell you about clocks on the surface of the Earth?"

Luboš Motl

Theoretical physicist Luboš Motl (bio) also uses the Equivalence Principle to cancel out the effect.

From his blog:

"John Rennie – who is going to jump above me at Physics Stack Exchange in a few months unless I will find motivation to prevent him from doing so – has asked a very nice question:

"The Earth is spinning so all people living at the equator are apparently moving at 464 m/s relatively to what seems like a 'better inertial frame'. By the special relativistic time dilation, this should slow their time by one part per trillion. That would be a 100 larger relative effect than the accuracy you may achieve with state-of-the-art atomic clocks. Has someone measured this effect that should be measurable?"

The answer is actually funny (especially if you say more than just the word "No"). Let me just repost mine.

The difference would indeed be measurable with state-of-the-art atomic clocks but it's not there: it cancels. The reasons actually boil down to the very first thought experiments that Einstein went through when he realized the importance of the equivalence principle for general relativity

Every argument showing the exact cancellation of the special relativistic effect must use the equivalence principle at one point or another; any argument avoiding this principle – or anything else from general relativity – is guaranteed to be incorrect because separately (without gravity and its effects), the special relativistic effect is certainly there. ”

Discover Magazine

On this topic Discover Magazine explains the identical clock rates as a result of Einstein's Equivalence Principle:

“Well, Einstein’s done it again! That is to say, the gravitational theories of Albert Einstein have once again been confirmed, and to a new degree of precision. The equations of general relativity predicted a certain quantity would be zero, and physicists at the National Institute of Standards and Technology (NIST) have calculated a record-low, unbelievably tiny result — basically, as good to zero as we can get.

So what did they measure? The variation between different ultra-precise atomic clocks around the world as it orbited the sun. It’s … a bigger deal than it sounds like.

Elevator Action

Part of Einstein’s genius was his ability to think things through using just his imagination. These so-called gedankenexperiments (“thought experiments”) yielded many of his insights in formulating the theory of general relativity, which focuses on gravity’s effects.

Among the more famous examples is one focusing on an imaginary elevator. Someone inside would be unable to distinguish a gravitational field from acceleration — the downward pressure you normally feel from Earth pulling at you could just as easily be the elevator accelerating ‘upward’ toward you in zero gravity. Stuck inside the elevator, with no windows, you couldn’t tell the difference.

The NIST team tested another aspect of the thought experiment, which says that everything inside the elevator would feel the same accelerations, and their relative properties would remain constant — zero change. It's an idea called local position invariance (LPI). They used Earth itself as the elevator, and compared the "ticks" of a dozen atomic clocks all over the planet. After studying nearly 15 years' worth of data the results were in: the difference was just 0.00000022 plus or minus 0.00000025. Pretty close to zero! "

Addendum

The above authors use Einstein's Equivalence Principle to explain why clocks at sea level all tick at the same rate across the surface of the Earth and champion it as a success of Einstein, despite Albert Einstein making the opposite prediction on the matter. Possessing more knowledge about Einstein's theories than Einstein himself, the writers salvage the matter by telling us that the expected time dilation is erased by the Equivalence Principle. The Equivalence Principle is a principle of nature which says that effects on Earth are indistinguishable from an Earth (or compartment) which is accelerating upwards.

From a University of Iowa presentation (Archive):

This approach of using an upwardly accelerating Earth as an explanation for why clocks at sea level all tick at the same rate is one which we can only express agreement with. Curiously, this principle not only applies to gravity, but to the rotational motion of the Earth as well. It has been argued that the Equivalence Principle is only a local effect, yet we find university explanations which utilize it as a worldwide effect to explain why time dilation does not occur at different latitudes due to the different latitudinal speeds of the Earth. Dr. Motl even goes as far as to say that it is only possible to cancel out the effect by using the Equivalence Principle and that any other argument is assuredly incorrect.

Time dilates at different altitudes in agreement with an upwardly accelerating Earth1, but not at different latitudes as suggested by a rotating Round Earth. It once again dawns upon the thinking man that our Earth is not the globe of popular credulity, but an upwardly accelerating plane.

Chapter 9

The Ascendancy of the Scientific Dictatorship

The following is a condensation from *The Ascendancy of the Scientific Dictatorship: An Examination of Epistemic Autocracy, from the 19th to the 21st Century*

by

Phillip Darrell Collins, Paul David Collins

Illuminating the Occult Origin of Darwinism

As antiquity gave way to modern history, the religious power structure shifted to an autocracy of the knowable, or a 'scientific dictatorship.' Subtly and swiftly, the ruling class seized control of science and used it as an 'epistemological weapon' against the masses. This article will show that the

history and background of this 'scientific dictatorship' is a conspiracy, created and micro-managed by the historical tide of Darwinism, which has its foundations in Freemasonry.

The Epistemological Cartel

In the Architecture of Modern Political Power, Daniel Pouzzner outlines the tactics employed by the elite to maintain their dominance. Among them is: 'Ostensible control over the knowable, by marketing institutionally accredited science as the only path to true understanding' (Pouzzner, 75). Thus, the ruling class endeavors to discourage independent reason while exercising illusory power over human knowledge. This tactic of control through knowledge suppression and selective dissemination is reiterated in the anonymously authored document Silent Weapons for Quiet Wars:

"Energy is recognized as the key to all activity on Earth. Natural science is the study of the sources and control of natural energy, and social science, theoretically expressed as economics, is the study of the sources and control of social energy. Both are bookkeeping systems. Mathematics is the primary energy science. And the bookkeeper can be king if the public can be kept ignorant of the methodology of the bookkeeping. All science is merely a means to an end. The means is knowledge. The end is control." – Keith, Secret and Suppressed, 203

The word 'science' is derived from the Latin word scientia, which means 'knowing.' Epistemology is the study of the nature and origin of knowledge. This elite monopoly of the knowable, which is enforced through institutional science, could be characterized as an "epistemological cartel." The ruling class has bribed the 'bookkeepers' (i.e., natural and social scientists). Meanwhile, the masses practically deify the 'bookkeepers' of the elite and remain 'ignorant of the methodology of the bookkeeping.' The unknown author of Silent Weapons for Quiet Wars provides an eloquently simple summation: 'The

means is knowledge. The end is control. Beyond this remains only one issue: Who will be the beneficiary?' (Keith, Secret and Suppressed, 203).

In Brave New World Revisited, Aldous Huxley more succinctly defined this Epistemological Cartel:

"The older dictators fell because they could never supply their subjects with enough bread, enough circuses, enough miracles, and mysteries. Under a scientific dictatorship, education will really work' with the result that most men and women will grow up to love their servitude and will never dream of revolution. There seems to be no good reason why a thoroughly scientific dictatorship should ever be overthrown."– Huxley, Brave New World Revisited, 116

This is the ultimate objective of the elite: an oligarchy legitimized by arbitrarily anointed expositors of 'knowledge' or, in Huxley's own words, a 'scientific dictatorship.'

The New Theocracy

How did the 'scientific dictatorship' of the twentieth century begin? In earlier centuries, the ruling class controlled the masses through more mystical belief systems, particularly Sun worship. Yet, this would all change. In Saucers of the Illuminati, Jim Keith documents the shift from a theocracy of the Sun to a theocracy of 'science':

"Since the Sun God (and his various relations, including sons and wives) were, after several thousand years of worship, beginning to fray around the edges in terms of believability, and a lot commoners were beginning to grumble that this stuff was all made up, the Illuminati came up with a new and improved version of their mind control software that didn't depend upon the Sun God or Moon Goddess for ultimate authority." – Keith, Saucers of the Illuminati, 78

Priests and rituals were soon supplanted by a new breed of 'bookkeepers' and a new 'methodology of bookkeeping.' Keith elaborates:

"As the Sun/Moon cult lost some of its popularity, 'Scientists' were quick to take up some of the slack. According to their propaganda, the physical laws of the universe were the ultimate causative factors, and naturally, those physical laws were only fathomable by the scientific (i.e. Illuminati) elite." – Keith, Saucers of the Illuminati, 78-79

This consciously induced paradigm shift facilitated the emergence of the elite's new theocracy. The official state-sanctioned religion of this theocracy was 'scientism': the belief that the investigational methods of the natural sciences should be ecumenically imposed upon all fields of inquiry. This form of epistemological imperialism is not to be confused with legitimate science. Researcher Michael Hoffman makes this distinction in his book Secret Societies and Psychological Warfare:

"Science, when practiced as the application of man's God-given talents for the production of appropriate technology on a human scale, relief of misery and the reverential exploration and appreciation of the glory of Divine Providence as revealed in nature, is a useful tool for mankind. Scientism is science gone mad, which is what we have today." (Hoffman, 49)

Hoffman further elaborates on the folly of scientism:

"The reason that science is a bad master and dangerous servant and ought not to be worshipped is that science is not objective. Science is fundamentally about the uses of measurement. What does not fit the yardstick of the scientist is discarded. Scientific determinism has repeatedly excluded some data from its measurement and fudged other data, such as Piltdown Man, in order to support the self-fulfilling nature of its own agenda, be it Darwinism or 'cut, burn and poison' methods of cancer 'treatment'." (Hoffman, 49)

It must be understood that this new institution of knowing is a form of mysticism like its religious precursors. Contemporary science is predicated upon empiricism, the idea that all knowledge is derived exclusively through the senses. Yet, an exclusively empirical approach relegates cause to the realm of metaphysical fantasy. This holds enormous ramifications for science. Do we really know what causes anything?

Although temporal succession and spatial proximity are self-evident, causal connection is not. Affirmation of causal relationships is impossible in science. What is perceived as A causing B could be merely circumstantial juxtaposition. Given the absence of known cause, all of a scientist's findings must be taken upon faith. This is all one can deduce while working under the paradigm of radical empiricism. Thus, the elite merely exchanged one form of mysticism for another.

Returning to Pouzzner's previous statement, 'ostensible control over the knowable' is achieved through the promulgation of 'institutionally accredited science' (Pouzzner, 75). Now, the elite had to meet two requirements to insure their epistemological dominance: a science specifically designed for their needs and an institution to accredit and disseminate it.

The British Royal Society

The new secular church and clergy of the elite originated within the walls of the British Royal Society. The creators of the Royal Society were also members of the Masonic Lodge. According to Baigent, Leigh, and Lincoln in Holy Blood, Holy Grail:

"Virtually all the Royal Society's founding members were Freemasons. One could reasonably argue that the Royal Society itself, at least in its inception, was a Masonic institution – derived, through Andrea's Christian Unions, from the 'invisible Rosicrucian brotherhood'." (Baigent, et al, 144)

Jim Keith makes it clear that the Masonic Lodge 'has been alleged to be a conduit for the intentions of a number of elitist interests' (Keith, Casebook on Alternative 3, 20). In service to the elite, the Royal Society Freemasons would re-sculpt epistemological notions and disseminate propaganda. Jim Keith provides a brief summation of the Royal Society's role in years to come: 'The British Royal Society of the late seventeenth century was the forerunner of much of the media manipulation that was to follow' (Keith, Saucers of the Illuminati, 79).

Before the advent of the British Royal Society, science (i.e., the study of natural phenomena) and theology (i.e., the study of God) were inseparable. The two were not separate repositories of knowledge, but natural correlatives. In Confession of Nature, Gottfried Wilhelm Leibniz established the centrality of God to science. According to Leibniz, the proximate origins of 'magnitude, figure, and motion,' which constitute the 'primary qualities' of corporeal bodies, 'cannot be found in the essence of the body' (de Hoyos).

Linda de Hoyos reveals the point at which science finds a dilemma:

"The problem arises when the scientist asks why the body fills this space and not another; for example, why it should be three feet long rather than two, or square rather than round. This cannot be explained by the nature of the bodies themselves, since the matter is indeterminate as to any definite figure, whether square or round. For the scientist who refuses to resort to an incorporeal cause, there can be only two answers. Either the body has been this way since eternity, or it has been made square by the impact of another body. 'Eternity' is no answer, since the body could have been round for eternity also. If the answer is 'the impact of another body,' there remains the question of why it should have had any determinate figure before such motion acted upon it. This question can then be asked again and again,

backwards to infinity. Therefore, it appears that the reason for a certain figure and magnitude in bodies can never be found in the nature of these bodies themselves."

The Same can be established for the body's cohesion and firmness, which left Leibniz with the following conclusion:

"Since we have demonstrated that bodies cannot have a determinate figure, quantity, or motion, without an incorporeal being, it readily becomes apparent that this incorporeal being is one for all, because of the harmony of things among themselves, especially since bodies are moved not individually by this incorporeal being but by each other. But no reason can be given why this incorporeal being chooses one magnitude, figure, and motion rather than another, unless he is intelligent and wise with regard to the beauty of things and powerful with regard to their obedience to their command. Therefore such an incorporeal being be a mind ruling the whole world, that is, God." (de Hoyos)

Of course, this conclusion was antithetical to the doctrine of the scientific dictatorship, which contended that 'the physical laws of the universe were the ultimate causative factors' (Keith, Saucers of the Illuminati, 78-79). Metaphysical naturalism (i.e., nature is God) had to be enthroned. Meanwhile, God's presence in the corridors of science had to be expunged. To achieve this, the Royal Society created a Gnostic division between science and theology, thus insuring the primacy of matter in the halls of scientific inquiry (Tarpley).

Blind Reverence to Science

Indeed, biases and presuppositions pervade the very fabric of the elite's epistemic autocracy. Academia itself has become the official church for this

cult of epistemological selectivity. Christian philosopher Ravi Zacharias personally encountered the enormous prejudicial hurdles of scientism during a casual conversation with a few scholars, wherein one scientist makes a shocking confession:

I asked them a couple of questions. 'If the Big Bang were indeed where it all began, may I ask what preceded the Big Bang?' Their answer, which I had anticipated, was that the universe was shrunk down to a singularity.

I pursued, 'But isn't it correct that a singularity as defined by science is a point at which all the laws of physics break down?'

'That is correct,' was the answer.

'Then, technically, your starting point is not scientific either.'

There was silence, and their expressions betrayed the scurrying mental searches for an escape hatch. But I had yet another question.

I asked if they agreed that when a mechanistic view of the universe had held sway, thinkers like Hume had chided philosophers for taking the principle of causality and applying it to a philosophical argument for the existence of God. Causality, he warned, could not be extrapolated from science to philosophy.

'Now,' I added, 'when quantum theory holds sway, randomness in the subatomic world is made a basis for randomness in life. Are you not making the very same extrapolation that you warned us against?'

Again there was silence and then one man said with a self-deprecating smile, 'We scientists do seem to retain selective sovereignty over what we allow to be transferred to philosophy and what we don't' (Zacharias, 64).

This 'selective sovereignty,' vigorously enforced by the epistemic autocracy of the elite, effectively marginalized dissenters and consummated the apotheosis of the 'bookkeepers.' Hoffman explains:

"The cryptocracy has successfully harnessed to its own ends the huge potential for promoting secret political-occult agendas to the public, by presenting them as unassailable 'objective scientific truth.' Since the bogey of 'science' instills in secularists a sort of blind reverence, opponents of political and occult agendas promoted through the propaganda of scientism are quickly stigmatized as 'Neanderthal,' especially with regard to their opposition to Darwinism, a dogma confirmed false by Norman Macbeth in his magisterial Darwin Retried and exposed as a cult by Gertrude Himmelfarb in Darwin." (Hoffman, 49)

Suddenly, 'ostensible control over the knowable' became the Divine Providence of god-like 'bookkeepers.' Meanwhile, their opponents became heretics and were 'burned at the stake' (i.e., marginalized by academia and other secular institutions). Hoffman states:

"The doctrine of man playing god reaches its nadir in the philosophy of scientism which makes possible the complete mental, spiritual and physical enslavement of mankind through technologies such as satellite and computer surveillance; a state of affairs symbolized by the 'All Seeing Eye' above the unfinished pyramid on the U.S. one dollar bill." (Hoffman, 50)

With the inculcation of the masses into scientism, the unfinished pyramid is almost complete.

Evolution: The Occult Doctrine of Becoming

With the British Royal Society acting as their headquarters of propaganda, the elite had created an institution to provide credibility for their specially designed 'science.' Now, they needed to introduce the 'science.' Recall that the founding members of the Royal Society were all Freemasons.

Thus, whatever 'science' these men would design would be derivative of Masonic doctrine. In The Meaning of Masonry, W.L. Wilmhurst reveals the worldview underpinning the new Masonic 'science':

"This – the evolution [emphasis added] of man into superman – was always the purpose of the ancient Mysteries, and the real purpose of modern Masonry is not the social and charitable purposes to which so much attention is paid, but the expediting of the spiritual evolution of those who aspire to perfect their own nature and transform it into a more god-like quality. And this is a definite science, a royal art, which it is possible for each of us to put into practice; whilst to join the Craft for any other purpose than to study and pursue this science is to misunderstand its meaning." (Wilmhurst, 47)

Later in the book, Wilmhurst reiterates this theme:

"Man who has sprung from Earth and developed through the lower kingdoms of nature to his present rational state, has yet to complete his evolution [emphasis added] by becoming a god-like being and unifying his consciousness with the Omniscient – to promote which is and always has been the sole aim and purpose of all Initiation." (Wilmhurst, 94)

With God's effective exile from science, man's position as imago viva Dei (created in the image of the Creator) was summarily relegated to obsolescence. Now, Freemasonry could introduce its occult doctrine of 'becoming,' the belief in man's gradual evolution towards apotheosis.

According to Mackey's Encyclopedia of Freemasonry, Erasmus Darwin, grandfather of Charles Darwin, was the first to promulgate the concept of Evolution:

"Dr. Erasmus Darwin (1731 – 1802) was the first man in England to suggest those ideas which later were to be embodied in the Darwinian theory by his grandson, Charles Darwin (1809 – 1882), who wrote in 1859 Origin of Species." (quoted in Daniel, 34)

The Lunar Society

Erasmus Darwin was the founder of the Lunar Society. According to author Ian Taylor, the Lunar Society was active from about 1764 to 1800 and its prominent influence 'continued long afterwards under the banner of The Royal Society.' The group's name owed itself to the fact that members met monthly at the time of the full moon. The membership of this group boasted such luminaries as John Wilkinson (who made cannons), James Watt (who owed his notoriety to the steam engine), Matthew Boulton (a manufacturer), Joseph Priestly (a chemist), Josiah Wedgewood (who founded the famous pottery business), and Benjamin Franklin. It is with the Lunar Society that one begins to identify Erasmus' ties to Freemasonry. (Taylor, 55)

Interestingly enough, in an article by Lord Richie-Calder, Lunar Society members were assigned the very esoteric appellation of 'merchants of light.' This was precisely the same description used for the hypothetical society presented in Sir Francis Bacon's New Atlantis (Taylor, 55). In her examination of J.G. Findel's History of Freemasonry, Nesta Webster made the following observation: 'Findel frankly admits that the New Atlantis contained unmistakable allusions to Freemasonry and that Bacon contributed to its final transformation' (Webster, 120).

Researcher Ian Taylor adds:

"Webster pointed out that one of the earliest and most eminent precursors of Freemasonry is said to have been Francis Bacon, who is also recognized to have been a Rosicrucian; the Rosicrucian and Freemason orders were closely allied and may have had a common source." (Taylor, 445)

Still, these are tenuous ties at best. Are there any sources that firmly establish a Darwinian/Freemasonic connection? Mackey's Encyclopedia of Freemasonry conclusively confirms a link:

"Before coming to Derby in 1788, Dr. [Erasmus] Darwin had been made a Mason in the famous Time Immemorial Lodge of Cannongate Kilwinning, No. 2, of Scotland. Sir Francis Darwin, one of the Doctor's sons, was made a Mason in Tyrian Lodge, No. 253, at Derby, in 1807 or 1808. His son Reginald was made a Mason in Tyrian Lodge in 1804. The name of Charles Darwin does not appear on the rolls of the Lodge but it is very possible that he, like Francis, was a Mason." (quoted in Daniel, 34)

In 1794, Erasmus wrote a book entitled Zoonomia, which delineated his theory of evolution (Taylor, 58). Being a Freemason, there is little doubt that Erasmus cribbed liberally from the Lodge's occult doctrine of 'becoming.' Before Erasmus had penned his precursory notions of progressive biological development, Freemason John Locke (1632 – 1704) extrapolated the Hindu doctrine of reincarnation into the context of metaphysical naturalism and formulated a theory of evolution (Daniel, 33-34).

The British East India Company had imported the Hindu belief in reincarnation to England where it would be adopted by the British Royal Society. A prominent member of the Royal Society, John Locke studied reincarnation extensively and, working with the occult doctrine as an extrapolative inspiration, developed his own evolutionary ideas. In fact, Locke's theory of evolution received the support of the male members of Darwin's family (Daniel, 33-34). Two centuries later, this occult concept of 'becoming' would be transmitted to Charles Darwin and On the Origin of Species would be born.

Metaphysical Naturalism: The Golem Reborn

Underpinning the concept of metaphysical naturalism is the notion that life originated with lifeless matter. This notion, dubbed 'spontaneous generation,' excludes the involvement of a supernatural Creator. Thus, nature became a god creating itself. Louis Pasteur, whose work established the Law

of Biogenesis, provided the most succinct summation of this anthropomorphic mysticism:

"To bring about spontaneous generation would be to create a germ. It would be creating life; it would be to solve the problem of its origin. It would mean to go from matter to life through conditions of environment and of matter [lifeless material]. God as author of life would then no longer be needed. Matter would replace Him. God would need to be invoked only as author of the motions of the universe." (Dubos, 395)

Like all of the 'false gods' of antiquity, the voracity of this new deity was soon demolished. 'Spontaneous generation' was confirmed impossible by the Law of Biogenesis. However, this fact did not stop certain 'men of science' from chronically deifying nature. For instance, Charles Darwin unconsciously revealed his idolatrous impulses through statements like: 'natural selection picks out with unerring skill the best varieties' (Hooykaas, 18).

Evident in such statements is the idea that nature is sentient. After all, only a sentient being holds discriminative tastes and, therefore, 'picks out' the recipients of its favor. Moreover, such statements reveal that 'nature' itself is a sovereign deity acting as the ultimate arbiter of life and death. This meme has metastasized, presenting itself today as the Gaia Hypothesis. This hypothesis holds that the biosphere is a self-creating, self-sustaining, and self-regenerating entity. Central to this thesis is the contention that both the living and non-living are inseparable (Lovelock, 31-33).

Although the concept of 'spontaneous generation' was confirmed scientifically bankrupt years ago, many continue to resuscitate its corpse. Why does this theme of lifeless matter spontaneously generating life continue to emerge? The answer is because it has been with man for a very long time. It is derivative of the golem, an occult concept presented in the Hebraic Kabbalah. Thirty-third Degree Freemason Albert Pike revealed that: 'all the Masonic associations owe to it [the Kabbalah] their Secrets and their

Symbols' (Pike, 744). According to this occult text, the golem was an artificially created man whose life was the result of supernatural intervention. The late Isaac Bashevis Singer, who studied the Kabbalah extensively, explained:

"'the golem ' is based on faith ' that dead matter is not really dead, but can be brought to life [emphasis added]' What are the computers and robots of our time if not golems? ' The Talmud tells us of an interpreter by the name of Rava who formed a man by this mysterious power' We are living in an epoch of golem-making right now. The gap between science and magic ' is becoming narrower'." (Hoffman, 115)

Drawing upon the esoteric doctrines of their occult heritage, the Freemasonic members of the British Royal Society re-introduced the golem to the public mind under the guise of 'metaphysical naturalism.' Gradually, the corporeal machinations of nature supplanted the miraculous Creator. Of course, these machinations were only intelligible to anointed scientists of the epistemic autocracy. Thus, the 'bookkeepers' of the elite became the new expositors of 'miracles.' This virtual deification of the 'bookkeepers' is evident in Singer's later statements regarding the golem:

"I was interested in the golem ' from my early childhood. I was brought up in the home of a rabbi, and his sermons often spoke of miracles, by the Baal Shem Tov and other wonder rabbis. ' I realized early in my life that science and technology had actually created a civilization of miracles. Science is one long chain of miracles.'." (Hoffman, 116)

Recall the words of Aldous Huxley in Brave New World Revisited: 'The older dictators fell because they could never supply their subjects with enough bread, enough circuses, enough miracles [emphasis added], and mysteries.' The new dictators do not intend to make the same mistake. With the effective enshrinement of metaphysical naturalism, the British Royal Society prepared to unleash their next golem. However, this golem would be

an artificially created ape-man presented to the public imagination under the appellation of Darwinism.

The Darwin Project

In the article 'Toward a New Science of Life,' EIR journalist Jonathan Tennenbaum makes the following the statement concerning Darwinism:

"Now, it is easy to show that Darwinism, one of the pillars of modern biology, is nothing but a kind of cult, a cult religion. I am not exaggerating. It has no scientific validity whatsoever. Darwin's so-called theory of evolution is based on absurdly irrational propositions, which did not come from scientific observations, but were artificially introduced from the outside, for political-ideological reasons." (Tennenbaum)

Given Darwinism's roots in occult Freemasonry and its expedient promotion of an emergent species of supermen (i.e., the elite), this is a fairly accurate assessment. Charles Darwin acted as the elite's apostle, preaching the new secular gospel of evolution. Darwinism could be considered a Freemasonic project, the culmination of a publicity campaign conducted by the Lodge. Evidence for this contention can be found in controversial Protocols of the Wise Men of Sion.

Although an examination of the Protocols and a critique of their authenticity are not the purposes of this essay, it is important to address the questions surrounding their origins. After all, the Protocols have been employed throughout history in numerous genocidal campaigns against the Jews. However, the authors of Holy Blood, Holy Grail provide evidence that the document may be Masonic in origin:

"It can thus be confirmed conclusively that the Protocols did not issue from the Judaic congress at Basle in 1897. That being so, the obvious questions is whence they did issue. Modern scholars have dismissed them as a total forgery, a wholly spurious document concocted by anti-Semitic interests'

intent on discrediting Judaism. And yet the Protocols themselves argue strongly against such a conclusion. They contain, for example, a number of enigmatic references – references that are clearly not Judaic. But these references are so clearly not Judaic that they cannot plausibly have been fabricated by a forger, either. No anti-Semitic forger with even a modicum of intelligence would possibly have concocted such references in order to discredit Judaism. For no one would have believed these references to be of Judaic origin."

Thus, for instance, the text of the Protocols ends with a single statement. 'Signed by the representatives of Sion of the 33rd Degree.' Why would an anti-Semitic forger have made up such a statement? Why would he not have attempted to incriminate all Jews, rather than just a few – the few who constitute 'the representatives of Sion of the 33rd Degree'? Why would he not declare that the document was signed by, say, the representatives of the international Judaic congress? In fact, the 'representatives of Sion of the 33rd Degree' would hardly seem to refer to Judaism at all, or to any 'international Jewish conspiracy.' If anything, it would seem to refer to something specifically Masonic. And the thirty-third degree in Freemasonry is that of the so-called Strict Observance – the system of Freemasonry introduced by Hund at the behest of his 'unknown superiors,' one of whom appears to have been Charles Radclyffe (Baigent, et al, 192-3). Baigent, Leigh, and Lincoln conclude:

"There was an original text on which the published version of the Protocols was based. This original text was not a forgery. On the contrary, it was authentic. But it had nothing whatever to do with Judaism or an 'international Jewish conspiracy.' It issued, rather, from some Masonic organization or Masonically oriented secret society that incorporated the word 'Sion'." (Baigent, et al, 194)

Given the Masonic language, one can completely discard the racist contention that the Protocols constitute evidence of an 'international Jewish conspiracy.' Nevertheless, the document holds some authenticity:

"The published version of the Protocols is not, therefore, a totally fabricated text. It is, rather, a radically altered text. But despite the alterations certain vestiges of the original version can be discerned'." (Baigent, et al, 195)

The remnant vestiges of the original text strongly suggest Masonic origins. Having established the Masonic authorship of the Protocols, one may return to issue at hand: Freemasonic involvement in the promotion of Darwinism. Consider the following excerpt from the Protocols, which reads distinctly like a mission statement:

"For them [the masses or cattle] let that play the principal part which we have persuaded them to accept as the dictates of science (theory). It is with this object in view that we are constantly, by means of our press, arousing a blind confidence in these theories. The intellectuals of the goyim [the masses or cattle] will puff themselves up with their knowledge and without any logical verification of it will put into effect all the information available from science, which our Agentur specialists have cunningly pieced together for the purpose of educating their minds in the direction we want."

Do not suppose for a moment that these statements are empty words: think carefully of the successes we arranged for Darwinism [emphasis added], Marxism, and Nietzsche-ism (reprint in Cooper, 274-5).

In addition to establishing the Lodge's official sanction of Darwinism, this excerpt also reveals a direct relationship between Marxism, Nietzsche-ism, and evolutionary theory.

It was the grandfather of Aldous Huxley, T.H. Huxley, who would act as the 'official spokesman for the recluse Darwin' (White, 268). Many years later, Aldous would propose a 'scientific dictatorship' in Brave New World

Revisited. Whether Aldous made this proposition on a whim or was penning a concept that had circulated within the Huxley family for years cannot be determined. Given the family's oligarchical tradition, the latter assertion remains a definite possibility. Yet, there may be a deeper Freemasonic connection, suggesting that the concept of a 'scientific dictatorship' may have originated within the Lodge.

T.H. Huxley was a Freemason and, with no apparent achievements to claim as his own, was made a Fellow of the Royal Society at the age of 26 (Daniel, 34). T.H. Huxley tutored Freemason H.G. Wells, who would later teach Huxley's two grandsons, Julian and Aldous. Both Julian and Aldous were Freemasons (Daniel, 147). Given this continuity of Freemasonic tutelage within the Huxley family, it is a definite possibility that the Huxlian concept of a 'scientific dictatorship' is really Masonic. Considering Freemason H.G. Wells' endorsement of a 'scientific dictatorship,' which he called a 'Technocracy,' this is highly likely.

The rest is history. With the publicity campaigns of the Royal Society and the avid defense of evolution apologist T.H. Huxley, Darwin's theory would be disseminated and popularized. The seed had taken root and, in the years to come, numerous permutations of the elite's 'scientific dictatorship' would emerge.

Science Fiction: A Means of Predictive Programming

Aldous Huxley first presented the 'scientific dictatorship' to the public imagination in his book Brave New World. In Dope, Inc., associates of political dissident Lyndon LaRouche claim that Huxley's book was actually a 'mass appeal' organizing document written 'on behalf of one-world order' (Dope, Inc., 538). The book also claims the United States is the only place where Huxley's 'science fiction classic' is taught as an allegorical condemnation of fascism. If this is true, then the 'scientific dictatorship' presented within the pages of his 1932 novel Brave New World is a thinly

disguised roman a' clef – a novel that thinly veils real people or events – awaiting tangible enactment.

Such is often the case with 'science fiction' literature. According to researcher Michael Hoffman, this literary genre is instrumental in the indoctrination of the masses into the doctrines of the elite.

"Traditionally, 'science fiction' has appeared to most people as an adolescent genre, the province of time-wasting fantasies. This has been the great strength of this genre as a vehicle for the inculcation of the ideology favored by the Cryptocracy. As J.H. Towsen points out in Clowns, only when people think they are not buying something can the real sales pitch begin. While it is true that with the success of NASA's Gemini space program and the Apollo moon flights more serious attention and respectability was accorded 'science fiction,' nonetheless in its formative seeding time, from the late 19th century through the 1950s, the predictive program known as 'science fiction' had the advantage of being derided as the solitary vice of misfit juveniles and marginal adults." (Hoffman, 205)

Thus, 'science fiction' is a means of conditioning the masses to accept future visions that the elite wish to tangibly enact. [Ed. Note: SF also widely uses Darwinian notions and language to project a fantastic future. This is another area of potential research.] This process of gradual and subtle inculcation is dubbed 'predictive programming.' Hoffman elaborates: 'Predictive programming works by means of the propagation of the illusion of an infallibly accurate vision of how the world is going to look in the future' (Hoffman, 205). Memes are instilled through the circulation of 'mass appeal' documents under the guise of 'science fiction' literature. Once subsumed on a cognitive level, these memes become self-fulfilling prophecies, embraced by the masses and outwardly approximated through the efforts of the elite.

If the concept of 'predictive programming' seems fantastic, consider the case of H.G. Wells. Wells was mentored by T.H. Huxley, grandfather of

Aldous. In turn, Wells would tutor Aldous and his brother, Julian. All of these men were members of the Freemasonic Lodge (the significance of which will be revealed shortly). Wells would author several 'mass appeal' tracts disguised as science fiction novels. Most notable of these novels was The Shape of Things to Come. Researcher Jim Keith offered the following assessment of Wells' The Shape of Things to Come:

"Interestingly, deceptively, the book is presented as a work of science fiction, but within its pages is Wells' best guess of how the New World Order would come to pass, from a 1930s perspective."

While primarily a work of propaganda that pushes the one-world worldview of Wells and other internationalists during the first half of this century, the book is particularly revealing in that it also exposes many of the strategies that are to be employed (Keith, Mind Control, World Control, 13).

Of course, not all of Wells' prophecies were 100% accurate. In his examination of The Shape of Things to Come, Keith concluded that:

"Wells was no prophet as regards to his timeline, only a science fiction writer privy to the plans of men with an interest in promoting the coming of the dictatorial world-state. His crystal ball is somewhat cloudy on certain details."– Keith, Mind Control, World Control, 16

However, Wells' novel did exhibit a strange degree of precision. Jim Keith enumerated the various instances of uncanny accuracy in Wells' The Shape of Things to Come. Among one of the synchronicities Keith found in the text was Wells' description of the elite's primary apparatus for the amalgamation of the world's economic systems:

"Not surprisingly Wells places the City of London – the international center of banking culture – and its financial credit as responsible for knitting together world economic life over the previous hundred years. With these innovations in communications and finance, but also with the frustrations

and wars inherent (so he says) in the existence of independent national states and sovereignties, came about the gradual dawning of the idea of the World-state."– Keith, Mind Control, World Control, 14

Another instance of uncanny accuracy was Wells' prognostications concerning a second global war and a proliferation of infectious diseases:

"Wells has World War II beginning in 1940 in Poland, over an imagined slight taken by a Nazi over the actions of a Pole of Jewish origin. He characterizes World War II as it was, as an orgy of violence, and has the fighting end in 1949 – staying remarkably close to the actual dates of the conflict – only to be followed by another scourge, that of rampant disease, 'The Raid of the Germs.'"

Given the present-day climate of AIDS, Ebola, Mad Cow disease, and other resistant viral strains – and the persistent rumors of the military engineering of those same diseases – perhaps Wells' dating in this particular should have been moved forward a few years (Keith, Mind Control, World Control, 16).

One of the most elucidating revelations found in The Shape of Things to Come was the group that Wells claimed would be central to the formation of a one-world government:

"Wells places responsibility for the creation of the New World Order in the lap of scientists of the future, the group he dubs the 'Technocracy'." – Keith, Mind Control, World Control, 16

Wielding 'ostensible control over the knowable,' the scientists of this 'Technocracy' would implement a Fabian strategy of 'gradual ideological assimilation' (Keith, World Control, Mind Control, 16-17). Incrementally, this network of scientists would engineer the amalgamation of nation-states into a global government. Again, the Huxlian theme of a 'scientific dictatorship'

emerges. This is the future that the masses have been conditioned to accept through predictive programming.

The Sirius Connection

In Morals and Dogma, 33rd Degree Freemason Albert Pike bestows special honor upon Sirius, a heavenly body that 'still glitters in our Lodges as the Blazing Star' (Pike, 486). Indeed, Sirius represents a foundational axiom of the Masonic Craft. Pike explains that the star is: "an emblem of the Divine Truth, given by God to the first men, and preserved amid all the vicissitudes of ages in the traditions and teachings of Masonry' (Pike, 136). As Pike continues, he reveals that Sirius has also held numerous other appellations: 'The Blazing Star in our Lodges, we have already said, represent Sirius, Anubis, or Mercury, Guardian and Guide of Souls' (Pike, 506).

Whatever its name, the star represents an entity of great esoteric significance to Freemasonry:

"In the old Lectures they said: 'The Blazing Star or Glory in the center refers us to that Grand Luminary the Sun, which enlightens the Earth, and by its genial influence dispenses blessings to mankind'." (Pike, 506)

A little later, Pike reiterates: "the Blazing Star has been regarded as an emblem of Omniscience, or the All-Seeing Eye, which to the Ancients was the Sun' (Pike, 506). Recall that, before the external characteristics of the oligarchs' control apparatus were cosmetically altered to present a 'scientific dictatorship,' the elite ruled through institutionalized Sun worship (Keith, Saucers of the Illuminati, 78-79). Within these statements, Pike provides a brief glimpse of the god of Freemasonry. Although the topographical features of its theocracy have changed, the deity has remained the same and his identity is associated with the star called Sirius.

According to Pike, Sirius was responsible for imparting numerous innovations to mankind:

"He was Sirius or the Dog-Star, the friend and counselor of Osiris, and the inventor of language, grammar, astronomy, surveying, arithmetic, music, and medical science; the first maker of laws; and who taught the worship of the Gods, and the building of temples." (Pike, 376)

It is interesting to note that, among his various contributions, this Freemasonic deity was responsible for the introduction of several forms of science. Does Sirius also represent the Lodge's 'ostensible control over the knowable?' Is the Dog-Star a symbol of the elite's 'scientific dictatorship?' Michael Hoffman further elaborates on the identity of Sirius:

"The mythical Satanic bringer of civilization to Earth was supposed to be an alien from the star system Sirius, around whom the Egyptians and all subsequent Hermetic systems constructed their elaborate and obsessive religio-astronomic observances. This star Sirius also served as an astronomic secret code, an allegory of the illusory quality and inherent 'trickiness' of the material world." (Hoffman, 26-27)

This Freemasonic mythology of extraterrestrial intervention in human evolution may be poised for a return. Given the impossibility of spontaneous generation, Darwinism has faced a major obstacle to its unquestioned primacy. Recognizing this obstacle, scientific materialist Francis Crick presented a theory bearing an uncanny resemblance to the Sirius myth. According to Crick, technologically advanced extraterrestrials 'seeded' the Earth with life billions of years ago. Whether Crick was privy to the occult doctrines of the elite or was simply following the natural course of Darwinism's memetic metastasis, one thing is certain, he and other proponents of similar 'extraterrestrial intervention' theories are paving the way for the re-introduction of Freemasonic mysticism to mainstream science.

There is a distinct possibility that the agentur of the elite are already in the process of facilitating the re-introduction of this myth. With the voracity of Darwinism in question, the effectiveness of this meme has been declining

and, with it, the influence of the ruling class. Of course, this is something that the elite cannot allow to happen. Consider the following account of Linda Moulton Howe. During a meeting with Richard Doty, an intelligence officer with the United States military, Howe was presented with a briefing paper regarding alien visitation. In its body, Howe read an interesting claim regarding the crumbling theory of Darwinism: 'It stated that all questions and mysteries about the evolution of Homo sapiens on this planet had been answered and that project was closed' (Howe, 151).

How convenient! By what means did these extraterrestrials facilitate the evolutionary process? Reiterating the basic contentions of Crick, the paper stated that:

"'these ETs have come at various intervals in the Earth's history to manipulate DNA in already existing terrestrial primates and perhaps in other life forms as well. To the best of my memory, the time intervals for this DNA manipulation specifically listed in the briefing paper were 25,000, 15,000, 5,000, and 2,500 years ago." (Howe, 151)

Faced with the impossibility of spontaneous generation and the inexorable collapse of Darwinism, the elite could now be invoking an 'extraterrestrial intervention' myth cribbed from their own doctrines. Given Richard Doty's military intelligence connections, this remains a very real possibility. The Freemasonic doctrine of Sirius has circulated within military intelligence groups for quite some time. According to researcher James Shelby Downard, there exists a cult of Sirius adherents at the highest levels of the CIA (Keith, Saucers of the Illuminati, 49). Researcher Jim Keith elaborates:

"He cites as one of their ritual locations the telescope viewing room of the Palomar Observatory in California. There, he says, the adepts of the Sirius-military intelligence cult enact rituals in the telescopically-focused light of the

Dog Star, in imitation of the Egyptian priesthood, astral rays bathing the viewing chamber and the participants when the telescope is aimed Sirius-ward." – Keith, Saucers of the Illuminati, 49

Keith proceeds to cite the case of military intelligence officer Michael Aquino:

"Utter madness? Tell that to Colonel Michael Aquino of U.S. military intelligence, the admitted head of the satanic Temple of Set, a deity [Set] identified in occultism with Sirius. Aquino makes no bones about the fact that he is the head of his offshoot of Anton LaVey's Church of Satan, known to draw many of its leaders from military circles. Again, we see the strange conjunction of Sirius, occultism, and military intelligence." – Keith, Saucers of the Illuminati, 49

Those who comprise this 'strange conjunction' could also be responsible for the perpetration of a disinformation campaign, derivative of Masonic doctrine and designed to maintain the waning dominance of Darwinism.

Darwinism Dismantled

Providing a complete and comprehensive delineation of the various concepts constituting Darwinism is a daunting task. The theory itself is a dense amalgam of 'isms,' thinly veiled occult concepts, philosophical doctrines, and ideologies. Again, Tennenbaum's statement that Darwinism 'is based on absurdly irrational propositions, which did not come from scientific observations, but were artificially introduced from the outside, for political-ideological reasons' seems succinct and accurate. Yet, with what outside sources do these 'absurdly irrational propositions' find their proximate origins?

One of the major influences on Darwin was Thomas Malthus, an Anglican clergyman who had received the blessings of French deist Jean-Jacques Rousseau and radical empiricist David Hume (Keynes, 99). Malthus authored Essay on the Principle of Population, a treatise premised upon the

thesis: 'Population, when unchecked, increases in a geometrical ratio. Subsistence increases only in an arithmetic ratio' (Malthus, 6). Although Malthus articulated his observations in succinct mathematical equations, the labyrinthine and complex machinations comprising the natural order typically defy such overly simplistic reductionism. Nonetheless, Malthus concluded

that society should adopt certain social policies to prevent the human population from growing disproportionately larger than the food supply.

Malthus' genocidal policies specifically targeted the poor. For instance, one of his proposals suggested the implementation of the following measures:

"Instead of recommending cleanliness to the poor, we should encourage contrary habits. In our towns we should make the streets narrower, crowd more people into the houses, and court the return of the plague. In the country, we should build our villages near stagnant pools, and particularly encourage settlement in all marshy and unwholesome situations. But above all, we should reprobate specific remedies for ravaging diseases; and those benevolent, but much mistaken men, who have thought they were doing a service to mankind by projecting schemes for the total extirpation of particular disorders." (Malthus, 412)

Through the promotion of hygienically unsound practices amongst impoverished populations, Malthus believed that the 'undesirable elements' of the human herd could be naturally culled by various maladies. The spread of disease could be further assisted through discriminative vaccination and zoning programs. Yet, amongst one of Malthus' most shocking proposals was his suggestion concerning children:

"We are bound in justice and honor formally to disclaim the right of the poor to support. To this end, I should propose a regulation be made declaring that no child born' should ever be entitled to parish assistance' The [illegitimate] infant is comparatively speaking, of little value to society, as others will immediately supply its place' All children beyond what would be

required to keep up the population to this [desired] level, must necessarily perish, unless room be made for them by the deaths of grown persons." (Malthus, 411, 430-1)

The dictum underpinning Malthus' logic would later be reiterated as 'survival of the fittest.' According to researcher Ian Taylor, the metastasis of this dictum 'can be traced from Condorcet to Malthus, to Spencer, to Wallace, and to Darwin' (Taylor, 65).

Another one of the many constituent worldviews comprising Darwinism is Hegelianism. According to philosopher Georg Hegel, a pantheistic world spirit was directing 'an ongoing developmental (evolutionary) process in nature, including humanity,' which bodied itself forth as a 'dialectical struggle between positive and negative entities.' This conflict always resulted in a 'harmonious synthesis' (Taylor, 381-2). The same dialectical framework is present in Darwinism.

In Circle of Intrigue, occult researcher Texe Marrs reveals the Hegelian structure intrinsic to Darwinian evolution. The organism (thesis) comes into conflict with nature (antithesis) resulting in a newly enhanced species (synthesis), the culmination of the evolutionary process (Marrs, Circle of Intrigue, 127). Of course, in such a world of ongoing conflict, violence and bloodshed are central to progress. Thus, Darwin's theory 'gave credence to the Hegelian notion that human culture had ascended from brutal beginnings' (Taylor, 386).

Yet, Darwinism's roots go deeper than Hegelianism, returning to an esoteric source that has been there since the beginning. Hegel's ideas did not originate with himself, but Fichte (Sutton, America's Secret Establishment, 34). Who was Fichte? Antony Sutton reveals that he was a 'Freemason, almost certainly Illuminati, and certainly promoted by the Illuminati' (Sutton, America's Secret Establishment, 34). In fact, Hegel's dialectical logic reiterates the Masonic dictum :Ordo Ab Chao (Order out of chaos). Again, it seems that the

bedrock upon which Darwinism rests is Freemasonry, a channel for elitist interests.

The French Revolution: An Abortive Scientific Dictatorship

According to academia's officially sanctioned historians, the French Revolution was little more than a rebellion of the commoner against a corrupt aristocracy and religious institution. However, in Essays on the French Revolution, Lord Acton made an interesting observation:

"The appalling thing in the French Revolution is not the tumult but the design. Through all the fire and smoke we perceive the evidence of calculating organization. The managers remain studiously concealed and masked; but there is no doubt about their presence from the first." (Reed, 136)

Who were the 'studiously concealed and masked managers' that orchestrated the French Revolution? In Morals and Dogma, Albert Pike revealed that it was Freemasonry that 'aided in bringing about the French Revolution' (Pike, 24). Indeed, the French Revolution represented the first full-scale attempt to tangibly enact the Masonic vision of a 'scientific dictatorship.'

The Lunar Society, which was the precursor to the Freemasonic Royal Society, was intimately connected to the revolutionary movement in France. Freemason Benjamin Franklin acted as the 'shuttle diplomat between the French and English Utopian idealists.' The son of James Watt was accused of being a French agent by Edmund Burke in the British House of Commons. Joseph Priestley had pledged his wholehearted support to the revolutionary French National Assembly. Fellow Lunar Society member James Keir hosted a dinner to commemorate the fall of the Bastille. Most notably, Freemason and Lunar Society founder Erasmus Darwin actively supported the Jacobins (Taylor, 56).

Who were the Jacobins? William Hoar reveals that they were 'agents of the Bavarian-bred Illuminati who operated out of the Club Breton" (p. 2).

The French Revolution exhibited all of the hallmarks of a 'scientific dictatorship':

A humanistic philosophy emphasizing man's evolutionary ascent towards apotheosis: After the Legislative Assembly rejected God as the object of man's worship and praise, the National Convention paraded a woman representing Athena from the convention hall to the chapel of Notre Dame. There, the Goddess of Reason took her place on the high altar (Scott, 306). In a Masonic context, this ritualistic enthronement of human reason represented the unification of man's consciousness with the Omniscient, which is the ultimate end of evolution (Wilmhurst, 94). In other words, human reason became the ultimate source of moral precepts and man became God.

A Malthusian depopulation campaign: Under the direction of Illuminist Robespierre, the new revolutionary government began carrying out a massive depopulation campaign that became known as the Terror. While Robespierre's goal of eliminating 15 million 'useless eaters' was never realized, the Terror was successful in claiming the lives of some 300,000 Frenchmen, 297,000 of which were members of the lower and middle working classes. It should come as little surprise that Thomas Malthus was educated under the combined tutelage of two supporters of the French Revolution: Gilbert Wakefield and Lunar Society member Joseph Priestley (Taylor, 59).

A Hegelian framework: Recall the Hegelian structure intrinsic to evolution (Marrs, 127). In hopes of accelerating France's evolution towards a 'scientific dictatorship,' the architects of the revolution promulgated a classic Hegelian dialectic: the bourgeoisie against the proletariat. The synthesis of these two polar extremes resulted in the subversion of individualism and the maintenance of class stratification.

Of course, the rest is history. The revolution swiftly degenerated into a bloodbath and many of the conspirators were slaughtered by the very mobs they had created. Yet, the esoteric symbol of this abortive 'scientific dictatorship' remains. Long after she was enthroned in the cathedral of Notre Dame, Athena was transplanted upon new shores. Occult researcher Texe Marrs explains in Dark Majesty:

Today, statues of this Illuminist Goddess of Reason are found throughout the U.S.A.; one stands astride the U.S. Capitol building in Washington, D.C. Another is atop the dome of the Capitol building in Austin, Texas. Her statue has been erected in town squares and city parks. But the most fantastic idol of the Goddess of Reason, the most majestic statue of the pagan lady who bears the torch of light, who illuminates, uplifts, and frees mankind, is found in New York's harbor.

Towering above the shimmering but polluted waters, she holds in her outreached arm and hand a torch of fire and light. A gift of the Masonic Order, the modern inheritors of the Illuminati heritage, the Statue of Liberty was sculptured by Frederic Bartholdi, a member of the Masonic Lodge of Alsace-Lorraine in Paris, France. The statue is an esoteric idol of great significance to the secret societies plotting the New World Order.

Did the French Revolution truly end or did it simply change venues? Has America been designated the new headquarters of the elite's next 'scientific dictatorship?' One thing is certain, although she is no longer worshipped in the cathedral of Notre Dame, the Goddess of Reason has never relinquished her crown.

The Rise of the Modern Scientific Dictatorship

Darwinism shares the Hegelian framework with two other belief systems. In The Secret Cult of the Order, Antony Sutton states: 'Both Marx and Hitler have their philosophical roots in Hegel' (Sutton, 118). It is here that one arrives at the Hegelian nexus where Darwin, Marx, and Hitler intersect. Recall

that Nietzsche-ism, Darwinism and Marxism were all mentioned together in the Protocols of the Wise Men of Sion. This was no accident. Nazism (a variant of fascism) sprung from Nietzsche-ism (Carr, XIV). Communism sprung from Marxism. Both were based upon Hegelian principles. Moreover, both were 'scientific dictatorships' legitimized by the 'science' of Darwinism. Ian Taylor elaborates:

"However, Fascism or Marxism, right wing or left – all these are only ideological roads that lead to Aldous Huxley's brave new world [i.e. scientific dictatorship], while the foundation for each of these roads is Darwin's theory of evolution. Fascism is aligned with biological determinism and tends to emphasize the unequal struggle by which those inherently fittest shall rule. Marxism stresses social progress by stages of revolution, while at the same time it paradoxically emphasizes peace and equality. There should be no illusions; Hitler borrowed from Marx. The result is that both Fascism and Marxism finish at the same destiny – totalitarian rule by the elite." (Taylor, 411)

The interest of both Hitler and Marx in Darwinian evolution is a matter of history. While he was living in London, Karl Marx attended lectures on evolutionary theory delivered by T.H. Huxley. Recognizing the odd synchronicity between the communist concept of class war and the Darwinian principle of natural selection, Marx sent Darwin a copy of Das Kapital in 1873. Enamored of evolution, Marx asked Darwin the permission to dedicate his next volume to him six year later. Troubled by the fact that it would upset certain members of his family to have the name of Darwin associated with an atheistic polemic, Charles politely declined the offer (Taylor, 381).

Numerous authors have established firm connections between Darwinism and Hitler's Nazism. Darwinian Arthur Keith documented the strong links between Hitler's racialist goals and the doctrine of evolution (Taylor, 409). In fact, in Evolution and Ethics, Keith candidly stated: 'The

German Fuhrer as I have consistently maintained, is an evolutionist; he has consciously sought to make the practice of Germany conform to the theory of evolution' (Keith, Evolution and Ethics, 230).

In an analysis of Mein Kampf, contemporary author Werner Maser reveals that Darwin was the crucible for Hitler's 'notions of biology, worship, force, and struggle, and of his rejection of moral causality in history.' Finally, researcher Alfred Kelly provides a comprehensive history of Darwinism's popularization in Germany (Taylor, 409).

Returning to the Hegelian nexus that binds Darwinism, Marxism, and Nazism, both the fascist and communist 'scientific dictatorships' represented tangible enactments of the dialectical framework resident in evolutionary theory. Marx was greatly influenced by Hegel (Taylor, 381). The concept of class struggle, which paralleled Darwinian natural selection, resulted from Marx's redirection of the Hegelian dialectic towards the socioeconomic realm. The proletariat (thesis) comes into conflict with the bourgeois (antithesis), resulting in a classless Utopia (synthesis). Marx, however, rejected the concept of a world spirit and relocated the revolution's causal source within the proletariat itself.

The same Hegelian framework was resident within Hitler's genocidal Final Solution. The German people (thesis) came into conflict with the Jew (antithesis) in hopes of creating the Aryan (synthesis). In both the case of communism and Nazism, the results were enormous bloodbaths. This is the natural consequence of Darwinian thinking and the legacy of the 'scientific dictatorship.'

In applying the ideas of Darwin, both communists and fascists have murdered millions. Both of these groups find their origins in the elite (the Illuminati), who are still pursuing the same objectives today. According to the Darwinian mantra of 'survival of the fittest,' victory will demand bloodshed.

Humanity may stand to inherit the 'scientific dictatorship's' bloody legacy in the very near future.

Eugenics and the Coming Global Scientific Dictatorship

Integral to Aldous' Brave New World is the practice of eugenics, which is closely aligned with Darwinism. Eugenics finds its origins with Darwin's cousin, Sir Francis Galton. Galton first introduced the concept of eugenics in Hereditary Genius, a racist polemic advocating a system of selective breeding for the purposes of providing 'more suitable races or strains of blood a better chance of prevailing over the less suitable' (Galton, 24). In truth, Galton was not the originator of this concept. Sordid traditions of selective breeding and inbreeding had long been practiced by the ruling class to maintain the 'genetic purity' of their future stock. Galton merely assigned this tradition the appellation of 'eugenics' and popularized it as a legitimate science.

In fact, this very same tradition was practiced by Darwin himself. In hopes of maintaining the 'genetic superiority' of his bloodline, Darwin married the youngest granddaughter of his maternal father. Researcher Ian Taylor reveals the results of this inbreeding project:

"Darwin's idea of inbreeding to produce superior stock can be seen to be a complete disaster in the case of his own ten children. Of the ten, one girl, Mary, died shortly after birth; another girl, Anne, died at the age of ten years; his eldest daughter, Henrietta, had a serious and prolonged breakdown at fifteen in 1859. Three of his six sons suffered such frequent illness that Darwin regarded them as semi-invalids while his last son, Charles Jr., was born mentally retarded and died in 1858, nineteen months after birth." (Taylor, 127)

Yet, in spite of eugenics' historical failure, the concept was vigorously promulgated within the scientific community. In 1901, the statistics department of London's University College became the headquarters for the

Eugenics Education Society. Motivated by Galton's vision of a future utopia ruled by a genetically engineered elite, the Eugenics Society would grow into a successful political movement. Aldous Huxley's eugenically regimented 'scientific dictatorship' presented in Brave New World was drawing closer to realization. Given his role in the tangible approximation of Aldous' roman a' clef, it is appropriate that one of the many accolades the scientific community bestowed upon Galton was the Huxley medal (Taylor, 405).

However, the agenda of Eugenical regimentation required an international machination by which it could be promulgated globally. That international machination was the United Nations Educational, Scientific and Cultural Organization (UNESCO). Julian Huxley, brother of Aldous, was the first director general of UNESCO and penned the organization's manifesto in 1947. Entitled UNESCO: Its Purpose and Its Philosophy, this document presents the following mission statement:

"Thus even though it is quite true that any radical eugenic policy will be for many years politically and psychologically impossible, it will be important for UNESCO to see that the eugenic problem is examined with the greatest care, and that the public mind is informed of the issues at stake so that much that now is unthinkable may at least become thinkable." (Huxley, UNESCO)

As the unthinkable becomes thinkable, the fictional becomes factual and Brave New World becomes a reality. In 1977, author Claire Chambers clearly delineated the UN's role as a global scientific dictatorship:

"Since its inception, the U.N. has advanced a world-wide program of population control, scientific human breeding [i.e., eugenics], and Darwinism." (Chambers, 3)

In Brave New World Revisited, Aldous Huxley prognosticated: "the twenty-first century' will be the era of World Controllers" (Huxley, 25). Aldous Huxley's 'scientific dictatorship' may not be confined to the pages of classic literature for much longer."

--http://thenwwrdor.blogspot.com/2018/03/the-ascendancy-of-scientific.html

Chapter 10

Apotheosis and The Myth of Evolution

How can we evolve into God (Apotheosis) if there is no evidence of Evolution?

The Deniable Darwin by David Berlinski

The Fossil Record Is Incomplete, The Reasoning Flawed; Is The Theory Of Evolution Fit To Survive?

Charles Darwin presented On the Origin of Species to a disbelieving world in 1859 - three years after Clerk Maxwell had published "On Faraday's Lines of Force," the first of his papers on the electromagnetic field. Maxwell's theory has by a process of absorption become part of quantum field theory, and so a part of the great canonical structure created by mathematical physics.

By contrast, the final triumph of Darwinian theory, although vividly imagined by biologists, remains, along with world peace and Esperanto, on the eschatological horizon of contemporary thought.

"It is just a matter of time," one biologist wrote recently, reposing his faith in a receding hereafter, "before this fruitful concept comes to be accepted by the public as wholeheartedly as it has accepted the spherical earth and the sun-centered solar system." Time, however, is what evolutionary biologists have long had, and if general acceptance has not come by now, it is hard to know when it ever will.

In its most familiar, textbook form, Darwin's theory subordinates itself to a haunting and fantastic image, one in which life on earth is represented as a tree. So graphic has this image become that some biologists have persuaded themselves they can see the flowering tree standing on a dusty plain, the mammalian twig obliterating itself by anastomosis into a reptilian branch and so backward to the amphibia and then the fish, the sturdy chordate line - our line, cosa nostra - moving by slithering stages into the still more primitive

trunk of life and so downward to the single irresistible cell that from within its folded chromosomes foretold the living future.

This is nonsense, of course. That densely reticulated tree, with its lavish foliage, is an intellectual construct, one expressing the hypothesis of descent with modification.

Evolution is a process, one stretching over four billion years. It has not been observed. The past has gone to where the past inevitably goes. The future has not arrived. The present reveals only the detritus of time and chance: the fossil record, and the comparative anatomy, physiology, and biochemistry of different organisms and creatures. Like every other scientific theory, the theory of evolution lies at the end of an inferential trail.

The facts in favor of evolution are often held to be incontrovertible; prominent biologists shake their heads at the obduracy of those who would dispute them. Those facts, however, have been rather less forthcoming than evolutionary biologists might have hoped. If life progressed by an accumulation of small changes, as they say it has, the fossil record should reflect its flow, the dead stacked up in barely separated strata. But for well over 150 years, the dead have been remarkably diffident about confirming Darwin's theory. Their bones lie suspended in the sands of time-theromorphs and therapsids and things that must have gibbered and then squeaked; but there are gaps in the graveyard, places where there should be intermediate forms but where there is nothing whatsoever instead.

Before the Cambrian era, a brief 600 million years ago, very little is inscribed in the fossil record; but then, signaled by what I imagine as a spectral puff of smoke and a deafening ta-da!, an astonishing number of novel biological structures come into creation, and they come into creation at once.

Thereafter, the major transitional sequences are incomplete. Important inferences begin auspiciously, but then trail off, the ancestral connection

between Eusthenopteron and Ichthyostega, for example - the great hinge between the fish and the amphibia - turning on the interpretation of small grooves within Eusthenopteron's intercalary bones. Most species enter the evolutionary order fully formed and then depart unchanged. Where there should be evolution, there is stasis instead - the term is used by the paleontologists Stephen Jay Gould and Niles Eldredge in developing their theory of "punctuated equilibria" - with the fire alarms of change going off suddenly during a long night in which nothing happens.

The fundamental core of Darwinian doctrine, the philosopher Daniel Dennett has buoyantly affirmed, "is no longer in dispute among scientists." Such is the party line, useful on those occasions when biologists must present a single face to their public. But it was to the dead that Darwin pointed for confirmation of his theory; the fact that paleontology does not entirely support his doctrine has been a secret of long standing among paleontologists. "The known fossil record," Steven Stanley observes, "fails to document a single example of phyletic evolution accomplishing a major morphologic transition and hence offers no evidence that the gradualistic model can be valid."

Small wonder, then, that when the spotlight of publicity is dimmed, evolutionary biologists evince a feral streak, Stephen Jay Gould, Niles Eldredge, Richard Dawkins, and John Maynard Smith abusing one another roundly like wrestlers grappling in the dark.

Pause for the Logician

Swimming in the soundless sea, the shark has survived for millions of years, sleek as a knife blade and twice as dull. The shark is an organism wonderfully adapted to its environment. Pause. And then the bright brittle voice of logical folly intrudes: after all, it has survived for millions of years.

This exchange should be deeply embarrassing to evolutionary biologists. And yet, time and again, biologists do explain the survival of an

organism by reference to its fitness and the fitness of an organism by reference to its survival, the friction between concepts kindling nothing more illuminating than the observation that some creatures have been around for a very long time. "Those individuals that have the most offspring," writes Ernst Mayr, the distinguished zoologist, "are by definition . . . the fittest ones." And in Evolution and the Myth of Creationism, Tim Berra states that “fitness in the Darwinian sense means reproductive fitness-leaving at least enough offspring to spread or sustain the species in nature."

This is not a parody of evolutionary thinking; it is evolutionary thinking. Que sera, sera.

Evolutionary thought is suffused in general with an unwholesome glow. "The belief that an organ so perfect as the eye," Darwin wrote, "could have been formed by natural selection is enough to stagger anyone." It is. The problem is obvious. "What good," Stephen Jay Gould asked dramatically, "is 5 percent of an eye?" He termed this question "excellent."

The question, retorted the Oxford professor Richard Dawkins, the most prominent representative of ultra-Darwinians, "is not excellent at all":

"Vision that is 5 percent as good as yours or mine is very much worth having in comparison with no vision at all. And 6 percent is better than 5, 7 percent better than 6, and so on up the gradual, continuous series."

But Dawkins, replied Phillip Johnson in turn, had carelessly assumed that 5 percent of an eye would see 5 percent as well as an eye, and that is an assumption for which there is little evidence. (A professor of law at the University of California at Berkeley, Johnson has a gift for appealing to the evidence when his opponents invoke theory, and vice versa.)

Having been conducted for more than a century, exchanges of this sort may continue for centuries more; but the debate is an exercise in irrelevance. What is at work in sight is a visual system, one that involves not only the

anatomical structures of the eye and forebrain, but the remarkably detailed and poorly understood algorithms required to make these structures work.

"When we examine the visual mechanism closely," Karen K. de Valois remarked recently in Science, "although we understand much about its component parts, we fail to fathom the ways in which they fit together to produce the whole of our complex visual perception."

These facts suggest a chastening reformulation of Gould's "excellent" question, one adapted to reality: could a system we do not completely understand be constructed by means of a process we cannot completely specify?

The intellectually responsible answer to this question is that we do not know -- we have no way of knowing. But that is not the answer evolutionary theorists accept. According to Daniel Dennett (in Darwin's Dangerous Idea), Dawkins is "almost certainly right" to uphold the incremental view, because "Darwinism is basically on the right track." In this, he echoes the philosopher Kim Sterenly, who is also persuaded that "something like Dawkins's stories have got to be right" (emphasis added). After all, she asserts, "natural selection is the only possible explanation of complex adaptation."

Dawkins himself has maintained that those who do not believe a complex biological structure may be constructed in small steps are expressing merely their own sense of "personal incredulity." But in countering their animadversions he appeals to his own ability to believe almost anything. Commenting on the (very plausible) claim that spiders could not have acquired their web-spinning behavior by a Darwinian mechanism, Dawkins writes: "It is not impossible at all. That is what I firmly believe and I have some experience of spiders and their webs." It is painful to see this advanced as an argument.

Unflagging Success

Darwin conceived of evolution in terms of small variations among organisms, variations which by a process of accretion allow one species to change continuously into another. This suggests a view in which living creatures are spread out smoothly over the great manifold of biological possibilities, like colors merging imperceptibly in a color chart.

Life, however, is absolutely nothing like this. Wherever one looks there is singularity, quirkiness, oddness, defiant individuality, and just plain weirdness. The male redback spider (Latrodectus hasselti), for example, is often consumed during copulation. Such is sexual cannibalism -- the result, biologists have long assumed, of "predatory females overcoming the defenses of weaker males." But it now appears that among Latrodectus basselti, the male is complicit in his own consumption. Having achieved intromission, this schnook performs a characteristic somersault, placing his abdomen directly over his partner's mouth. Such is sexual suicide-awfulness taken to a higher power.2

It might seem that sexual suicide confers no advantage on the spider, the male passing from ecstasy to extinction in the course of one and the same act. But spiders willing to pay for love are apparently favored by female spiders (no surprise, there); and female spiders with whom they mate, entomologists claim, are less likely to mate again. The male spider perishes; his preposterous line persists.

`This explanation resolves one question only at the cost of inviting another: why such bizarre behavior? In no other Latrodectus species does the male perform that obliging somersault, offering his partner the oblation of his life as well as his love. Are there general principles that specify sexual suicide among this species, but that forbid sexual suicide elsewhere? If so, what are they?

Once asked, such questions tend to multiply like party guests. If evolutionary theory cannot answer them, what, then, is its use? Why is the Pitcher plant carnivorous, but not the thorn bush, and why does the Pacific salmon require fresh water to spawn, but not the Chilean sea bass? Why has the British thrush learned to hammer snails upon rocks, but not the British blackbird, which often starves to death in the midst of plenty? Why did the firefly discover bioluminescence, but not the wasp or the warrior ant; why do the bees do their dance, but not the spider or the flies; and why are women, but not cats, born without the sleek tails that would make them even more alluring than they already are?

Why? Yes, why? The question, simple, clear, intellectually respectable, was put to the Nobel laureate George Wald. "Various organisms try various things," he finally answered, his words functioning as a verbal shrug, "they keep what works and discard the rest."

But suppose the manifold of life were to be given a good solid yank, so that the Chilean sea bass but not the Pacific salmon required fresh water to spawn, or that ants but not fireflies flickered enticingly at twilight, or that women but not cats were born with lush tails. What then? An inversion of life's fundamental facts would, I suspect, present evolutionary biologists with few difficulties. Various organisms try various things. This idea is adapted to any contingency whatsoever, an interesting example of a Darwinian mechanism in the development of Darwinian thought itself.

A comparison with geology is instructive. No geological theory makes it possible to precisely specify a particular mountain's shape; but the underlying process of upthrust and crumbling is well understood, and geologists can specify something like a mountain's generic shape. This provides geological theory with a firm connection to reality. A mountain arranging itself in the shape of the letter "A" is not a physically possible object; it is excluded by geological theory.

The theory of evolution, by contrast, is incapable of ruling anything out of court. That job must be done by nature. But a theory that can confront any contingency with unflagging success cannot be falsified. Its control of the facts is an illusion.

Sheer Dumb Luck

Chance alone," the Nobel Prize-winning chemist Jacques Monod once wrote, "is at the source of every innovation, of all creation in the biosphere. Pure chance, absolutely free but blind, is at the very root of the stupendous edifice of creation."

The sentiment expressed by these words has come to vex evolutionary biologists. "This belief," Richard Dawkins writes, "that Darwinian evolution is 'random,' is not merely false. It is the exact opposite of the truth." But Monod is right and Dawkins wrong. Chance lies at the beating heart of evolutionary theory, just as it lies at the beating heart of thermodynamics.

It is the second law of thermodynamics that holds dominion over the temporal organization of the universe, and what the law has to say we find verified by ordinary experience at every turn. Things fall apart. Energy, like talent, tends to squander itself. Liquids go from hot to lukewarm. And so does love. Disorder and despair overwhelm the human enterprise, filling our rooms and our lives with clutter. Decay is unyielding. Things go from bad to worse. And overall, they go only from bad to worse.

These grim certainties the second law abbreviates in the solemn and awful declaration that the entropy of the universe is tending toward a maximum. The final state in which entropy is maximized is simply more likely than any other state. The disintegration of my face reflects nothing more compelling than the odds. Sheer dumb luck.

But if things fall apart, they also come together. Life appears to offer at least a temporary rebuke to the second law of thermodynamics. Although biologists are unanimous in arguing that evolution has no goal, fixed from the

first, it remains true nonetheless that living creatures have organized themselves into ever more elaborate and flexible structures. If their complexity is increasing, the entropy that surrounds them is decreasing. Whatever the universe-as-a-whole may be doing -- time fusing incomprehensibly with space, the great stars exploding indignantly -- biologically things have gone from bad to better, the show organized, or so it would seem, as a counterexample to the prevailing winds of fate.

How so? The question has historically been the pivot on which the assumption of religious belief has turned. How so? "God said: 'Let the waters swarm with swarms of living creatures, and let fowl fly above the earth in the open firmament of heaven.'" That is how so. And who on the basis of experience would be inclined to disagree? The structures of life are complex, and complex structures get made in this, the purely human world, only by a process of deliberate design. An act of intelligence is required to bring even a thimble into being; why should the artifacts of life be different?

Darwin's theory of evolution rejects this counsel of experience and intuition. Instead, the theory forges, at least in spirit, a perverse connection with the second law itself, arguing that precisely the same force that explains one turn of the cosmic wheel explains another: sheer dumb luck.

If the universe is for reasons of sheer dumb luck committed ultimately to a state of cosmic listlessness, it is also by sheer dumb luck that life first emerged on earth, the chemicals in the pre-biotic seas or soup illuminated and then invigorated by a fateful flash of lightning. It is again by sheer dumb luck that the first self-reproducing systems were created. The dense and ropy chains of RNA -- they were created by sheer dumb luck, and sheer dumb luck drove the primitive chemicals of life to form a living cell. It is sheer dumb luck that alters the genetic message so that, from infernal nonsense, meaning for a moment emerges; and sheer dumb luck again that endows life with its opportunities, the space of possibilities over which natural selection plays, sheer dumb luck creating the mammalian eye and the marsupial pouch, sheer

dumb luck again endowing the elephant's sensitive nose with nerves and the orchid's translucent petal with blush.

Amazing. Sheer dumb luck.

Life, Complex Life

Physicists are persuaded that things are in the end simple; biologists that they are not. A good deal depends on where one looks. Wherever the biologist looks, there is complexity beyond complexity, the entanglement of things ramifying downward from the organism to the cell. In a superbly elaborated figure, the Australian biologist Michael Denton compares a single cell to an immense automated factory, one the size of a large city:

On the surface of the cell we would see millions of openings, like the portholes of a vast spaceship, opening and closing to allow a continual stream of materials to flow in and out. If we were to enter one of these openings we would find ourselves in a world of supreme technology and bewildering complexity. We would see endless highly organized corridors and conduits branching in every direction away from the perimeter of the cell, some leading to the central memory bank in the nucleus and others to assembly plants and processing units. The nucleus itself would be a vast spherical chamber more than a kilometer in diameter, resembling a geodesic dome inside of which we would see, all neatly stacked together in ordered arrays, the miles of coiled chains of the DNA molecule.... We would notice that the simplest of the functional components of the cell, the protein molecules, were, astonishingly, complex pieces of molecular machinery....Yet the life of the cell depends on the integrated activities of thousands, certainly tens, and probably hundreds of thousands of different protein molecules.

And whatever the complexity of the cell, it is insignificant in comparison with the mammalian nervous system; and beyond that, far impossibly ahead, there is the human mind, an instrument like no other in the biological world, conscious, flexible, penetrating, inscrutable, and profound.

It is here that the door of doubt begins to swing. Chance and complexity are countervailing forces; they work at cross-purposes. This circumstance the English theologian William Paley (1743-1805) made the gravamen of his well-known argument from design:

Nor would any man in his senses think the existence of the watch, with its various machinery, accounted for, by being told that it was one out of possible combinations of material forms; that whatever he had found in the place where he found the watch, must have contained some internal configuration or other, and that this configuration might be the structure now exhibited, viz., of the works of a watch, as well as a different structure. It is worth remarking, it is simply a fact, that this courtly and old-fashioned argument is entirely compelling. We never attribute the existence of a complex artifact to chance. And for obvious reasons: complex objects are useful islands, isolated amid an archipelago of useless possibilities. Of the thousands of ways in which a watch might be assembled from its constituents, only one is liable to work. It is unreasonable to attribute the existence of a watch to chance, if only because it is unlikely. An artifact is the overflow in matter of the mental motions of intention, deliberate design, planning, and coordination. The inferential spool runs backward, and it runs irresistibly from a complex object to the contrived, the artificial, circumstances that brought it into being.

Paley allowed the conclusion of his argument to drift from man-made to biological artifacts, a human eye or kidney falling under the same classification as a watch. "Every indication of contrivance," he wrote, "every manifestation of design, exists in the works of nature; with the difference, on the side of nature, of being greater or more, and that in a degree which exceeds all computation.

In this drifting, Darwinists see dangerous signs of a non sequitur. There is a tight connection, they acknowledge, between what a watch is and how it is made; but the connection unravels at the human eye -- or any other

organ, disposition, body plan, or strategy -- if only because another and a simpler explanation is available. Among living creatures, say Darwinists, the design persists even as the designer disappears.

"Paley's argument," Dawkins writes, "is made with passionate sincerity and is informed by the best biological scholarship of his day, but it is wrong, gloriously and utterly wrong."

The enormous confidence this quotation expresses must be juxtaposed against the weight of intuition it displaces. It is true that intuition is often wrong-quantum theory is intuition's graveyard. But quantum theory is remote from experience; our intuitions in biology lie closer to the bone. We are ourselves such stuff as genes are made on, and while this does not establish that our assessments of time and chance must be correct, it does suggest that they may be pertinent.

The Book of Life

The Discovery of DNA by James D. Watson and Francis Crick in 1952 revealed that a living creature is an organization of matter orchestrated by a genetic text. Within the bacterial cell, for example, the book of life is written in a distinctive language. The book is read aloud, its message specifying the construction of the cell's constituents, and then the book is copied, passed faithfully into the future.

This striking metaphor introduces a troubling instability, a kind of tremor, into biological thought. With the discovery of the genetic code, every living creature comes to divide itself into alien realms: the alphabetic and the organismic. The realms are conceptually distinct, responding to entirely different imperatives and constraints. An alphabet, on the one hand, belongs to the class of finite combinatorial objects, things that are discrete and that fit together in highly circumscribed ways. An organism, on the other hand, traces a continuous figure in space and in time. How, then, are these realms coordinated?

I ask the question because in similar systems, coordination is crucial. When I use the English language, the rules of grammar act as a constraint on the changes that I might make to the letters or sounds I employ. This is something we take for granted, an ordinary miracle in which I pass from one sentence to the next, almost as if crossing an abyss by means of a series of well-placed steppingstones.

In living creatures, things evidently proceed otherwise. There is no obvious coordination between alphabet and organism; the two objects are governed by different conceptual regimes, and that apparently is the end of it. Under the pressures of competition, the orchid Orphry's apifera undergoes a statistically adapted drift, some incidental feature in its design becoming over time ever more refined, until, consumed with longing, a misguided bee amorously mounts the orchid's very petals, convinced that he has seen shimmering there a female's fragile genitalia. As this is taking place, the marvelous mimetic design maturing slowly, the orchid's underlying alphabetic system undergoes a series of random perturbations, letters in its genetic alphabet winking off or winking on in a way utterly independent of the grand convergent progression toward perfection taking place out there where the action is.

We do not understand, we cannot re-create, a system of this sort. However it may operate in life, randomness in language is the enemy of order, a way of annihilating meaning And not only in language, but in any language-like system -- computer programs, for example. The alien influence of randomness in such systems was first noted by the distinguished French mathematician M.P. Schutzenberger, who also marked the significance of this circumstance for evolutionary theory. "If we try to simulate such a situation," he wrote, "by making changes randomly on computer programs, we find that we have no chance even to see what the modified program would compute; it just jams.

Planets of Possibility

This is not yet an argument, only an expression of intellectual unease; but the unease tends to build as analogies are amplified. The general issue is one of size and space, and the way in which something small may be found amidst something very big.

Linguists in the 1950's, most notably Noam Chomsky and George Miller, asked dramatically how many grammatical English sentences could be constructed with 100 letters. Approximately 10 to the 25th power, they answered. This is a very large number. But a sentence is one thing; a sequence, another. A sentence obeys the laws of English grammar; a sequence is lawless and comprises any concatenation of those 100 letters. If there are roughly (1025) sentences at hand, the number of sequences 100 letters in length is, by way of contrast, 26 to the 100th power. This is an inconceivably greater number. The space of possibilities has blown up, the explosive process being one of combinatorial inflation.

Now, the vast majority of sequences drawn on a finite alphabet fail to make a statement: they consist of letters arranged to no point or purpose. It is the contrast between sentences and sequences that carries the full, critical weight of memory and intuition. Organized as a writhing ball, the sequences resemble a planet-sized object, one as large as pale Pluto. Landing almost anywhere on that planet, linguists see nothing but nonsense. Meaning resides with the grammatical sequences, but they, those sentences, occupy an area no larger than a dime.

How on earth could the sentences be discovered by chance amid such an infernal and hyperborean immensity of gibberish? They cannot be discovered by chance, and, of course, chance plays no role in their discovery. The linguist or the native English-speaker moves around the place or planet with a perfectly secure sense of where he should go, and what he is apt to see.

The eerie and unexpected presence of an alphabet in every living creature might suggest the possibility of a similar argument in biology. It is DNA of course, that acts as life's primordial text, the code itself organized in nucleic triplets, like messages in Morse code. Each triplet is matched to a particular chemical object, an amino acid. There are twenty such acids in all. They correspond to letters in an alphabet. As the code is read somewhere in life's hidden housing, the linear order of the nucleic acids induces a corresponding linear order in the amino acids. The biological finger writes, and what the cell reads is an ordered presentation of such amino acids-a protein.

Like the nucleic acids, proteins are alphabetic objects, composed of discrete constituents. On average, proteins are roughly 250 amino acid residues in length, so a given protein may be imagined as a long biochemical word, one of many.

The aspects of an analogy are now in place. What is needed is a relevant contrast, something comparable to sentences and sequences in language. Of course nothing completely comparable is at hand: there are no sentences in molecular biology. Nonetheless, there is this fact, helpfully recounted by Richard Dawkins: "The actual animals that have ever lived on earth are a tiny subset of the theoretical animals that could exist." It follows that over the course of four billion years, life has expressed itself by means of a particular stock of proteins, a certain set of life-like words.

A combinatorial count is now possible. The MIT physicist Murray Eden, to whom I owe this argument, estimates the number of the viable proteins at 10 to the 50th power. Within this set is the raw material of everything that has ever lived: the flowering plants and the alien insects and the seagoing turtles and the sad shambling dinosaurs, the great evolutionary successes and the great evolutionary failures as well. These creatures are, quite literally, composed of the proteins that over the course of time have

performed some useful function, with "usefulness" now standing for the sense of sentencehood in linguistics.

As in the case of language, what has once lived occupies some corner in the space of a larger array of possibilities, the actual residing in the shadow of the possible. The space of all possible proteins of a fixed length (250 residues, recall) is computed by multiplying 20 by itself 250 times (20 to the 250th power). It is idle to carry out the calculation. The numbers larger by far than seconds in the history of the world since the Big Bang or grains of sand on the shores of every sounding sea. Another planet now looms in the night sky, Pluto-sized or bigger, a conceptual companion to the planet containing every sequence composed by endlessly arranging the 26 English letters into sequences 100 letters in length. This planetary doppelganger is the planet of all possible proteins of fixed length, the planet, in a certain sense, of every conceivable form of carbon-based life.

And there the two planets lie, spinning on their soundless axes. The contrast between sentences and sequences on Pluto reappears on Pluto's double as the contrast between useful protein forms and all the rest; and it reappears in terms of the same dramatic difference in numbers, the enormous (20 to the 25th power) overawing the merely big (10 to the 50th power), the contrast between the two being quite literally between an immense and swollen planet and a dime's worth of area. That dime-sized corner, which on Pluto contains the English sentences, on Pluto's double contains the living creatures; and there the biologist may be seen tramping, the warm puddle of wet life achingly distinct amid the planet's snow and stray proteins. It is here that living creatures, whatever their ultimate fate, breathed and moaned and carried on, life evidently having discovered the small quiet corner of the space of possibilities in which things work.

It would seem that evolution, Murray Eden writes in artfully ambiguous language, "was directed toward the incredibly small proportion of useful protein forms. . . ," the word "directed" conveying, at least to me, the

sobering image of a stage-managed search, with evolution bypassing the awful immensity of all that frozen space because in some sense evolution knew where it was going.

And yet, from the perspective of Darwinian theory, it is chance that plays the crucial -- that plays the only role in generating the proteins. Wandering the surface of a planet, evolution wanders blindly, having forgotten where it has been, unsure of where it is going.

The Artificer of Design

Random mutations are the great creative demiurge of evolution, throwing up possibilities and bathing life in the bright light of chance. Each living creature is not only what it is but what it might be. What, then, acts to make the possible palpable?

The theory of evolution is a materialistic theory. Various deities need not apply. Any form of mind is out. Yet a force is needed, something adequate to the manifest complexity of the biological world, and something that in the largest arena of all might substitute for the acts of design, anticipation, and memory that are obvious features of such day-to-day activities as fashioning a sentence or a sonnet.

This need is met in evolutionary theory by natural selection, the filter but not the source of change. "It may be said," Darwin wrote, that natural selection is daily and hourly scrutinizing, throughout the world, every variation, even the slightest; rejecting that which is bad, preserving and adding up all that is good: silently and insensibly working, whenever and wherever opportunity offers, as the improvement of each organic being in relation to its organic and inorganic conditions of life.

Natural selection emerges from these reflections as a strange force-like concept. It is strange because it is unconnected to any notion of force in physics, and it is force-like because natural selection does something, it has an effect and so unctions as a kind of cause.

Creatures, habits, organ systems, body plans, organs, and tissues are shaped by natural selection. Population geneticists write of selection forces, selection pressures, and coefficients of natural selection; biologists say that natural selection sculpts, shapes, coordinates, transforms, directs, controls, changes, and transfigures living creatures.

It is natural selection, Richard Dawkins believes, that is the artificer of design, a cunning force that mocks human ingenuity even as it mimics it:

Charles Darwin showed how it is possible for blind physical forces to mimic the effects of conscious design, and, by operating as a cumulative filter of chance variations, to lead eventually to organized and adaptive complexity, to mosquitoes and mammoths, to humans and therefore, indirectly, to books and computers.

In affirming what Darwin showed, these words suggest that Darwin demonstrated the power of natural selection in some formal sense, settling the issue once and for all. But that is simply not true. When Darwin wrote, the mechanism of evolution that he proposed had only life itself to commend it. But to refer to the power of natural selection by appealing to the course of evolution is a little like confirming a story in the New York Times by reading it twice. The theory of evolution is, after all, a general theory of change; if natural selection can sift the debris of chance to fashion an elephant's trunk, should it not be able to work elsewhere- amid computer programs and algorithms, words and sentences? Skeptics require a demonstration of natural selection's cunning, one that does not involve the very phenomenon it is meant to explain.

No sooner said than done. An extensive literature is now devoted to what is optimistically called artificial life. These are schemes in which a variety of programs generate amusing computer objects and by a process said to be similar to evolution show that they are capable of growth and decay and even a phosphorescent simulacrum of death. An algorithm called "Face Prints," for

example, has been designed to enable crime victims to identify their attackers. The algorithm runs through hundreds of facial combinations (long hair, short hair, big nose, wide chin, moles, warts, wens, wrinkles) until the indignant victim spots the resemblance between the long-haired, big-nosed, wide chinned portrait of the perpetrator and the perpetrator himself.

It is the presence of the human victim in this scenario that should give pause. What is be doing there, complaining loudly amid those otherwise blind forces? A mechanism that requires a discerning human agent cannot be Darwinian. The Darwinian mechanism neither anticipates nor remembers. It gives no directions and makes no choices. What is unacceptable in evolutionary theory, what is strictly forbidden, is the appearance of a force with the power to survey time, a force that conserves a point or a property because it will be useful. Such a force is no longer Darwinian. How would a blind force know such a thing? And by what means could future usefulness be transmitted to the present?

If life is, as evolutionary biologists so often say, a matter merely of blind thrusting and throbbing, any definition of natural selection must plainly meet what I have elsewhere called a rule against deferred success.5

It is a rule that cannot be violated with impunity; if evolutionary theory is to retain its intellectual integrity, it cannot be violated at all.

> But the rule is widely violated, the violations so frequent as to amount to a formal fallacy.

Advent of the Head Monkey

It is Richard Dawkins's grand intention in The Blind Watchmaker to demonstrate, as one reviewer enthusiastically remarked, "how natural selection allows biologists to dispense with such notions as purpose and design." This he does by exhibiting a process in which the random exploration of certain possibilities, a blind stab here, another there, is followed by the filtering effects of natural selection, some of those stabs

saved, others discarded. But could a process so conceived -- a Darwinian process -- discover a simple English sentence: a target, say, chosen from Shakespeare? The question is by no means academic. If natural selection cannot discern a simple

English sentence, what chance is there that it might have discovered the mammalian eye or the system by which glucose is regulated by the liver? A thought experiment in The Blind Watchmaker now follows. Randomness in the experiment is conveyed by the metaphor of the monkeys, perennial favorites in the theory of probability. There they sit, simian hands curved over the keyboards of a thousand typewriters, their long agile fingers striking keys at random. It is an image of some poignancy, those otherwise intelligent apes banging away at a machine they cannot fathom; and what makes the poignancy pointed is the fact that the system of rewards by which the apes have been induced to strike the typewriter's keys is from the first rigged against them.

The probability that a monkey will strike a given letter is one in 26. The typewriter has 26 keys: the monkey, one working finger. But a letter is not a word. Should Dawkins demand that the monkey get two English letters right, the odds against success rise with terrible inexorability from one in 26 to one in 676. The Shakespearean target chosen by Dawkins -- "Methinks it is like a weasel"-is a six-word sentence containing 28 English letters (including the spaces). It occupies an isolated point in a space of 10,000 million, million, million, million, million, million possibilities. This is a very large number; combinatorial inflation is at work. And these are very long odds. And a six-word sentence consisting of 28 English letters is a very short, very simple English sentence.

Such are the fatal facts. The problem confronting the monkeys is, of course, a double one: they must, to be sure, find the right letters, but they cannot lose the right letters once they have found them. A random search in a space of this size is an exercise in irrelevance. This is something the monkeys

appear to know. What more, then, is expected; what more required? Cumulative selection, Dawkins argues- the answer offered as well by Stephen Jay Gould, Manfred Eigen, and Daniel Dennett. The experiment now proceeds in stages. The monkeys type randomly. After a time, they are allowed to survey what they have typed in order to choose the result "which however slightly most resembles the target phrase." It is a computer that in Dawkins's experiment performs the crucial assessments, but I prefer to imagine its role assigned to a scrutinizing monkey-the Head Monkey of the experiment. The process under way is one in which stray successes are spotted and then saved. This process is iterated and iterated again. Variations close to the target are conserved because they are close to the target, the Head Monkey equably surveying the scene until, with the appearance of a miracle in progress, randomly derived sentences do begin to converge on the target sentence itself.

The contrast between schemes and scenarios is striking. Acting on their own, the monkeys are adrift in fathomless possibilities, any accidental success-a pair of English-like letters-lost at once, those successes seeming like faint untraceable lights flickering over a wine-dark sea. The advent of the Head Monkey changes things entirely. Successes are conserved and then conserved again. The light that formerly flickered uncertainly now stays lit, a beacon burning steadily, a point of illumination. By the light of that light, other lights are lit, until the isolated successes converge, bringing order out of nothingness.

The entire exercise is, however, an achievement in self-deception. A target phrase. Iterations that most resemble the target. A Head Monkey that measures the distance between failure and success? If things are sightless, how is the target represented, and how is the distance between randomly generated phrases and the targets assessed? And by whom? And the Head Monkey? What of him? The mechanism of deliberate design, purged by Darwinian theory on the level of the organism, has reappeared in the

description of natural selection itself, a vivid example of what Freud meant by the return of the repressed.

This is a point that Dawkins accepts without quite acknowledging, rather like a man adroitly separating his doctor's diagnosis from his own disease.6

Nature presents life with no targets. Life shambles forward, surging here, shuffling there, the small advantages accumulating on their own until something novel appears on the broad evolutionary screen-an arch or an eye, an intricate pattern of behavior, the complexity characteristic of life. May we, then, see this process at work, by seeing it simulated?

"Unfortunately," Dawkins writes, "I think it may be beyond my powers as a programmer to set up such a counterfeit world."7

This is the authentic voice of contemporary Darwinian theory. What may be illustrated by the theory does not involve a Darwinian mechanism; what involves a Darwinian mechanism cannot be illustrated by the theory.

Darwin Without Darwinism

Biologists often affirm that as members of the scientific community they positively welcome criticism. Nonsense. Like everyone else, biologists loathe criticism and arrange their lives so as to avoid it. Criticism has nonetheless seeped into their souls, the process of doubt a curiously Darwinian one in which individual biologists entertain minor reservations about their theory without ever recognizing the degree to which these doubts mount up to a substantial deficit. Creationism, so often the target of their indignation, is the least of their worries.

For many years, biologists have succeeded in keeping skepticism on the circumference of evolutionary thought, where paleontologists, taxonomists, and philosophers linger. But the burning fringe of criticism is now contracting, coming ever closer to the heart of Darwin's doctrine. In a

paper of historic importance, Stephen Jay Gould and Richard Lewontin expressed their dissatisfaction with what they termed "just-so" stories in biology.8

It is by means of a just-so story, for example, that the pop biologist Elaine Morgan explains the presence in human beings of an aquatic diving reflex. An obscure primate ancestral to man, Morgan argues, was actually aquatic, having returned to the sea like the dolphin. Sometime later, that primate, having tired of the water, clambered back to land, his aquatic adaptations intact. Just so.

If stories of this sort are intellectually inadequate -- preposterous, in fact -- some biologists are prepared to argue that they are unnecessary as well, another matter entirely. "How seriously," H. Allen Orr asked in a superb if savage review of Dennett's Darwin's Dangerous Idea, should we take these endless adaptive explanations of features whose alleged Design may be illusory? Isn't there a difference between those cases where we recognize Design before we understand its precise significance and those cases where we try to make Design manifest concocting a story? And isn't it especially worrisome that we can make up arbitrary traits faster than adaptive stories, and adaptive stories faster than experimental tests?

The camel's lowly hump and the elephant's nose -- these, Orr suggests, may well be adaptive and so designed by natural selection. But beyond the old familiar cases, life may not be designed at all, the weight of evolution borne by neutral mutations, with genes undergoing a slow but pointless drifting in time's soft currents.

Like Orr, many biologists see an acknowledgment of their doubts as a cagey, a calculated, concession; but cagey or not, it is a concession devastating to the larger project of Darwinian biology. Unable to say what evolution has accomplished, biologists now find themselves unable to say whether evolution has accomplished it. This leaves evolutionary theory in the doubly

damned position of having compromised the concepts needed to make sense of life -- complexity, adaptation, design - while simultaneously conceding that the theory does little to explain them.

No doubt, the theory of evolution will continue to play the singular role in the life of our secular culture that it has always played. The theory is unique among scientific instruments in being cherished not for what it contains, but for what it lacks. There are in Darwin's scheme no biotic laws, no Bauplan as in German natural philosophy, no special creation, no elan vital, no divine guidance or transcendental forces. The theory functions simply as a description of matter in one of its modes, and living creatures are said to be something that the gods of law indifferently sanction and allow.

"Darwin," Richard Dawkins has remarked with evident gratitude, "made it possible to be an intellectually fulfilled atheist." This is an exaggeration, of course, but one containing a portion of the truth. That Darwin's theory of evolution and biblical accounts of creation play similar roles in the human economy of belief is an irony appreciated by altogether too few biologists.

On the Derivation of Ulysses from Don Quixote

I imagine this story being told to me by Jorge Luis Borges one evening in a Buenos Aires cafe.

His voice dry and infinitely ironic, the aging, nearly blind literary master observes that "the Ulysses," mistakenly attributed to the Irishman James Joyce, is in fact derived from "the Quixote."

I raise my eyebrows.

Borges pauses to sip discreetly at the bitter coffee our waiter has placed in front of him, guiding his hands to the saucer.

"The details of the remarkable series of events in question may be found at the University of Leiden," he says. "They were conveyed to me by the Freemason Alejandro Ferri in Montevideo."

Borges wipes his thin lips with a linen handkerchief that he has withdrawn from his breast pocket.

"As you know," he continues, "the original handwritten text of the Quixote was given to an order of French Cistercians in the autumn of 1576."

I hold up my hand to signify to our waiter that no further service is needed.

"Curiously enough, for none of the brothers could read Spanish, the Order was charged by the Papal Nuncio, Hoyo dos Monterrey (a man of great refinement and implacable will), with the responsibility for copying the Quixote, the printing press having then gained no currency in the wilderness of what is now known as the department of Auvergne. Unable to speak or read Spanish, a language they not unreasonably detested, the brothers copied the Quixote over and over again, re-creating the text but, of course, compromising it as well, and so inadvertently discovering the true nature of authorship.

Thus they created Fernando Lor's Los Hombres d'Estado in 1585 by means of a singular series of copying errors, and then in 1654 Juan Luis Samorza's remarkable epistolary novel Por Favor by the same means, and then in 1685, the errors having accumulated sufficiently to change Spanish into French, Moliere's Le Bourgeois Gentilhomme, their copying continuous and indefatigable, the work handed down from generation to generation as a sacred but secret trust, so that in time the brothers of the monastery, known only to members of the Bourbon house and, rumor has it, the Englishman and psychic Conan Doyle, copied into creation Stendhal's The Red and the Black and Flaubert's Madame Bovary, and then as a result of a particularly

significant series of errors, in which French changed into Russian, Tolstoy's The Death of Ivan Ilyich and Anna Karenina.

Late in the last decade of the 19th century there suddenly emerged, in English, Oscar Wilde's The Importance of Being Earnest, and then the brothers, their numbers reduced by an infectious disease of mysterious origin, finally copied the Ulysses into creation in 1902, the manuscript lying neglected for almost thirteen years and then mysteriously making its way to Paris in 1915, just months before the British attack on the Somme, a circumstance whose significance remains to be determined."

I sit there, amazed at what Borges has recounted. "Is it your understanding, then," I ask, "that every novel in the West was created in this way?"

"Of course," replies Borges imperturbably. Then he adds: "Although every novel is derived directly from another novel, there is really only one novel, the Quixote." --http://www.arn.org/docs/berlinski/db_deniabledarwin0696.htm

No Free Lunch: Why Specified Complexity Cannot Be Purchased Without Intelligence

DNA is a language because it utilizes abstract, substitutive, and symbolic representation which is very similar to a computer language. Microsoft founder Bill Gates writes: “Human DNA is like a computer program but far, far more advanced than any we’ve ever created.” Natural processes do not create anything even vaguely resembling a computer program. This is an undeniable fact of science. Even if you had a trillion, trillion, trillion, trillion years of Evolution, you would barely arrive at anything that could even remotely look like the grammatical code: "See Spot jump up

the tree to meet Sarah, Reginald, and Sandra." And that syntactical structure might only happen once every trillion years and certainly would not satisfy the requirements of the millions of perfectly sequenced DNA codes needed to make even one human cell.

DNA is a code uses four letters – A, C, G, T. The letters stand for adenine, cytosine, guanine, thymine. The DNA code uses groups of three letter words to make meaning. Microsoft founder Bill Gates writes: "Human DNA is like a computer program but far, far more advanced than any we've ever created." Natural processes do not create anything even vaguely resembling a computer program.

Even the world's most outspoken atheist, the biologist Richard Dawkins, concedes that DNA is a language very similar to a computer language.

In his book *River Out of Eden: A Darwinian View of Life*, Dawkins writes:

"…The machine code of the genes is uncannily computer-like. Apart from differences in jargon, the pages of a molecular biology journal might be interchanged with those of a computer engineering journal."

--Charles Dawkins

Elsewhere, Dawkins writes:

"What has happened is that genetics has become a branch of information technology. The genetic code is truly digital, in exactly the same sense as computer codes. This is not some vague analogy; it is the literal truth."

Atheism cannot explain how a code/language can be produced without intelligence:

In order to suppose that a code or language could be produced by an unintelligent natural process, atheists must receive a special exemption from the rule which states that, "Abstract, substitutive, symbolic representation (language or code) can only result from intelligence.", as every hardcore Scientist has been screaming for the last 200 years. And Atheists fail to explain WHY it is necessary to grant such a special exemption.

Atheists require an exemption from the rule that only INTELLIGENCE produces codes and languages because accepting that the DNA code was caused by an intelligence is DEVASTATING to Atheism. But they cannot cite a plausible reason for such an exemption, and must therefore engage in special pleading and faith-based religiosity to assert their model.

What is the logical necessity for postulating an unintelligent cause for the language of DNA? Since DNA possess a teleological causative reason for being, which is to give instructions for life to emerge, it satisfies the basic logical necessity for its existence. Put another way, there is a reason to assume a blueprint for a house existed if we encounter a house. The two are inextricably linked since intelligent design binds them both together. You cannot have one without the other. Where there is smoke there is fire, and where there is life, there is intelligent design to bring it into existence. It is basic empirically deductive reason.

The fact that Atheists cannot accept the existence of an Eternally Existent Agency or consciousness, even though this is the view most consistent with modern Astrophysics, Quantum Physics, and Cosmology, reveals the inherent Methodological Naturalistic Biases, empirical limitations, and hocus pocus nature of Atheism.

What is the chance that our world is the result of chance? Obviously, it is zero. Modern physics and probability statistics has discredited Atheism long ago, for chance does not constitute a logical necessity. Rather, it

constitutes, at best, an IDEOLOGICAL necessity. In other words, without causal intelligence to give rise to reality, there is no logical necessity for reality to arise. It is crystal clear logic that Atheists fail to comprehend.

Prominent theoretical biologist (and Atheist) Stuart Kaufmann tries to explain the emergence of life from non-living matter as the result of a hypothetical "fourth law of thermodynamics". There are only three laws of thermodynamics, however. This type of Atheistic ruse of special pleading in indicative of the fundamental logical error that Atheistic thinking stems from.

William Dembski responds to Kaufmann's hypothesis in his book No Free Lunch: Why Specified Complexity Cannot Be Purchased Without Intelligence:

"…what should be immediately evident from Kaufmann's statement of these proposed laws are that they are very different in form and function from the traditional three laws of thermodynamics. The traditional three laws of thermodynamics are each proscriptive generalizations. That is, they each make an assertion as to what cannot happen to a physical system. The first law states that in an isolated system total energy neither increases nor decreases. The second law states that the entropy [the measure of disorder] of an isolated system cannot decrease. The third law states that it is not possible to reduce the temperature of an isolated system to absolute zero in a finite number of operations. Kaufmann's candidate laws are nothing like this. Instead, they provide qualitative descriptions of the emergence of complexity in nature, yet without proposing a mechanism that is causally sufficient to account for the emergence of that complexity."

In short, Atheists are saying, "Give us one free miracle, and we'll fill in all the rest."

And this is way Atheism has always failed as an explanation for the existence of life.

Responses to: No Free Lunch: Why Specified Complexity Cannot Be Purchased Without Intelligence

Jonatas Machado

Darwinism is the Titanic and William Dembski is the tip of the Iceberg. It only takes intelligence to sink Darwinism. Why is that so? It pretty simple. If you survey Darwinist literature you will find a simple truth: no one has ever seen evolution taking place!

1) No one knows how a unicellular organism could lead to the tree of common descent. No one can tell the full story or reconstruct the whole process.

2) What's more, evolutionary algorithms are simply incapable of accounting for the complexity of life. The probabilities involved in the origin and evolution of life are beyond our wildest dreams.

3) Most "proofs" of evolution are based on unlikely and untestable extrapolations.

4) Many arguments demonstrating evolution assume it took place in the first place. They are (not so clever) tautologies. In fact, it is hard to find an argument in favor of evolution that is not question begging.

5) The whole project of evolutionary theory starts from naturalist and materialist assumptions that are themselves question begging.

6) This leads to a "naturalistic circle" in which naturalistic arguments and naturalistic methodology lead necessarily to naturalistic conclusions.

7) The problem with the "naturalistic circle" is that it assumes a materialistic conception of nature. This, in itself, is also question begging and may mean that the many gaps in evolutionary knowledge may be a structural and objective problem, and not merely a conjunctural and subjective one.

8) Information may be a part of nature. This possibility must be investigated before being discarded with typical "Darwinian question begging certainty".

8) William Dembski suggests that scientists should have a method of detecting and measuring design before jumping into the conclusion, as does Richard Dawkins, that "evidence demonstrates the existence of a universe without design".

9) Scientists can only say that there is no design in nature after having devised a reliable method to detect and measuring information design and after having tested it in nature with negative results.

10)If they don't do this, they will be question begging as they usually do. They may even discard William Dembski's explanatory filter (though I doubt they will entirely succeed)but they cannot discard William Dembski's main argument.

Eric Blievernicht

Darwin is dead.

Let's get on with it and keep science within the realm of REAL alternatives in origins research.

That pretty well summarizes No Free Lunch, which brings the reader up to date with the latest in mathematical research and design theory. The "No Free Lunch" theorems establish that information does not arise by either chance or order - the two mechanisms available to naturalism, AKA atheistic Darwinism. The only thing left is intelligence as the source of information.

This is hardly the first book to make this claim (cf. Werner Gitt's In the Beginning was Information - or for that matter, the ancient Greek philosophers had it figured out). But in a world saturated with the religion of naturalism, this blunt work destroying that religion at its very foundation stands out. When the last Darwinist is dead and buried, William Dembski will be highly ranked among those who laid the evolutionary ideology to rest.

Demski's handling of Darwinian critics, blinded by their own preconceptions and faith commitments, is excellent. While the book as a whole is too technical for many readers, Dembski outlines the main themes very well, limiting the mathematical proofs to some sections so that the remainder of the work can be read profitably by just about anyone.

Steven H. Propp

William Albert Dembski (born 1960) is a key figure in the "Intelligent Design" movement, who is a former professor at the Southern Evangelical Seminary and a former senior fellow of the Discovery Institute. He has written/edited many other books, such as Intelligent Design: The Bridge Between Science and Theology , The Design Revolution: Answering the Toughest Questions About Intelligent Design , Mere Creation; Science, Faith & Intelligent Design , Uncommon Dissent: Intellectuals Who Find Darwinism Unconvincing , Tough-Minded Christianity: Legacy of John Warwick Montgomery , etc.

He wrote in the Preface to this 2002 book, "Is it really the case… that the directive organization of living beings can be explained without recourse to a designer? And would employing a designer in biological explanations necessarily take us out of the realm of science? The purpose of this book is to answer these two questions. The title of this book… refers to a collection of mathematical theorems proved in the past five years about evolutionary algorithms… evolutionary algorithms are incapable of providing a computational justification for the Darwinian mechanism of natural selection

the random mutation as the primary creative force in biology. The subtitle… refers to that form of information… that is increasingly coming to be regarded as a reliable empirical marker of purpose, intelligence, and design."

In the first chapter, he explains, "In this book I will argue that design is a legitimate and fundamental mode of scientific explanation, on a par with chance and necessity… Design, as I develop it, cuts both ways and might just as well be used to empty such religious doctrines of empirical content by clarifying the superfluity of design in nature… My aim is not to find design in any one place or to gain ideological mileage, but to open up possibilities for finding design as well as for shutting it down."

He explains, "When intelligent agents act, they leave behind a characteristic trademark or signature---what I define as 'specified complexity.' The complexity-specification criterion detects design by identifying this trademark of designed objects."

He argues, "My own view is that our understanding of physics needs to proceed considerably further before we can establish convincingly that ours is a universe that optimally facilitates the formation of black holes… [Lee] Smolin's theory, in positing that black holes generate universes, would explain why we are in a universe that optimally facilitates for formation of black holes. But it is not as though we would ever have independent evidence for Smolin's theory, say by looking inside a black hole and seeing whether there is a universe in it. Of all the objects in space… black holes divulge the least amount of information about themselves."

He states, "CSI [Complex Specified Complexity] makes clear the connection between design and information theory, To infer design by means of the complexity-specification criterion… is equivalent to detect complex specified information… For an event to satisfy the complexity-specification criterion, it must first of all be contingent. But contingency… is the chief characteristic of information… What's more for a contingent event in

conjunction with a specification to constitute complex specified information. It follows that the complexity-specification criterion attributes design if and only if it detects CSI."

He asserts, "How, then, does one generate specified complexity? There is only one known generator of specified complexity, and that is intelligence. In every case where we know the causal history underlying an instance of specified complexity, an intelligent agent was involved…. Thus, to claim that natural laws… can produce specified complexity is to commit a category mistake. It is to attribute to laws something they are intrinsically incapable of delivering. Indeed, all our evidence points to intelligence as the sole source for specified complexity."

He points out, "The problem with trying to explain an irreducibly complex system like the bacterial flagellum as a patchwork is that it requires multiple coordinated exaptation. It is not just that one thing evolves for one function… and then through some quick and dirty modification gets used for some completely different function. It is that multiple protein parts from different functional systems have to break free and then coalesce to form a new integrated system… there is no reason to view such sheer possibilities as live possibilities."

He notes, "What does an ID-based curriculum teach actually happened in the course of biological evolution?... an ID-based curriculum will teach Darwinian theory, both the evidence that supports it as well as the countervailing evidence. Such a curriculum will also teach progress to date on the research problems specific to a design-theoretic research program… In particular… it will teach what at the time is the best scientific account of the pattern of evolution consistent with specified complexity not being a free lunch… Naturalistic mechanisms… are in principle incapable or generating specified complexity. Consequently, whenever evolution exhibits a net increase in specified complexity, that net increase must be sought in factors other than naturalistic mechanisms."

He summarizes, "a design-theoretic research program reconceptualizes evolutionary biology in information-theoretic terms. An evolutionary biology thoroughly cognizant of information theory is one whose chief task is to trace informational pathways… Detailed informational pathways need to be explicitly exhibited---just-so stories will not do. Moreover, informational pathways need to conform to biological reality, and not to the virtual reality residing in a computer. Finally, empirical evidence… must decide whether an informational pathway exists at all… In this reconceptualization of evolutionary biology, many low-level facts of current evolutionary biology will remain unchanged."

He says, "Is intelligent design falsifiable? Is Darwinism falsifiable? Yes to the first question, no to the second. Intelligent design is eminently falsifiable. Specified complexity in general and irreducible complexity in biology are within the theory of intelligent design the key markers of intelligent agency. If it could be shown that biological systems like the bacterial flagellum … could have been formed by a gradual Darwinian process… then intelligent design would be falsified on the general grounds that one does not invoke intelligent causes when purely natural causes will do." Later, he adds, "there is no merit to Eugenie Scott's claim that intelligent design is untestable and has not put forward any 'testable models.'"

He concludes, "The big question confronting science is whether design can be gotten on the cheap or must be paid for in kind. In this book I have argued that design admits no bargains. Specified complexity, that key indicator of design, has but one known source, namely, intelligence. Specified complexity cannot be purchased without it… It is time to come clean about what natural causes can and cannot accomplish. They cannot substitute for intelligent causes. They are not a free lunch."

This book will be of great interest to those seriously studying Intelligent Design, and similar science/religion issues.

The Dinosaur Hoax: Keeping the Evolutionary Myth Alive

Well the Smithsonian is 100% fake. There is not one real fossil there...plaster mock ups. They openly confess that. And if you ask to see the real fossil storage room, they will not allow you. It's Freemasonic territory.

Never has a complete skeletal Dinosaur structure of just one Dinosaur ever been found. The few bones they did claim to be from Dinosaurs have only ever been examined by the finders, whoever those pretend scientists, charlatans were.

There is actually zero fossil evidence of Dinosaurs...just fantasy science fiction stories about Dinosaurs from Freemasonic Halls. They invented the Dinosaur Hoax to help give more legitimacy to the equally fiction Evolutionary Theory they had created to give more legitimacy to the Heliocentric fantasy they created to give more legitimacy to the Big Bang Cosmology fantasy they created to give more legitimacy to the Gravity fantasy they created to give more legitimacy to the Evolving Outer Space fantasy they created to give more legitimacy to the Ancient Aliens fantasy they created to destroy the ideas of God and Christianity. Welcome to the history our Freemasonic Luciferian educational system concealed from us.

So, you see, it has been a long road of occult deceptions from Biblical Christianity to Freemasonic Cosmic Consciousness and the brain dead, New Age of Aquarius. Now we witness a gauntlet of brainwashed New Agers, all drugged up on pretentious "Love and Light" as they "Do As Thou Wilt", thirsty to preach the Freemasonic, Hermetic Occult gospel of Accession into Universal Consciousness and merging with a Quantum Mysticism Pantheistic Universe... with or without Elon Musk's Neural Lace. And all the while, they berate anyone who interferes with their quest for 'High Consciousness Vibrations". If you don't agree with them, and condemn their path in any

way, they will accuse you of "Lowering Their Vibration" and make it all your fault...pretty enlightened, right?

Cosmic Consciousness and Ancient Alien Ancestry is nothing more than Babylonian Occult Fantasy repackaged as authentic empirical science. In essence, these Secret Societies hijacked Physics, Astrophysics, Astronomy, and a science in general and injected their own occult Mysticism into it as a way of capturing the entire world inside their Luciferian Satanic Alien Fantasy Religion.

Additionally, Luciferianism involves the Lucifer, The Angel of Light, and so there is a conspicuous preoccupation our occult based Modern Science to deify light. This is why we see much emphasis on Light Optics, Photonic research, Particle Energy research, Light's supposed dual nature as a particle and a wave, The Heliocentric Model (Worshipping the Sun=Light), Light Years, the Speed of Light, and as much focus upon light in physics as possible, in the deification of Lucifer.

It also makes sense what we see so much concurrent emphasis upon Light in The Occult Luciferian New Age, where Luciferian Doctrines are taught as occult secret knowledge. Every New Ager gush about "Love and Light". There are Light Workers in The New Age. They talk of The Light Body, being Enlightened, the spectrum of Light at Rainbow Gatherings, and entering the Age of Light, The Luciferian Light, the Light of Pure Consciousness, and the Pure Doctrine of the Light of Lucifer. There are Light Healers, and Light Paths. Then, there are the Occult based, Illuminati, with their Illuminated Ones, and the Occult Naturalistic Atheistic Enlightenment Movement.

Everything is about, hypocritically, about "Love and Light" in the New Age, and nobody even hints at the Dark Occult and Wicked origins or agenda of the progenitors of The New Age...the Elitist Eugenics and Depopulation Agendas of the real New Age Elite to eliminate all those who do now worship the Pure Doctrine of Lucifer. That part is either overlooked or unknown to the blind spiritual slaves lost in the occult echo chamber of New Age Doctrine a Hermetic ritual and practice.

"Love and Light" is a greeting New Agers give to each other to symbolize they are peaceful and loving people. They have little understanding that this greeting was given to them by Occult High Masters who are indoctrinating the entire world into a Luciferian Cult, where we all must pay devout submission and homage to the Angel of LIGHT, Lucifer at all times.

Lucifer always promises Love and Light to all who study the secret Babylonian Mystery School teachings, but they end up lost in a self-destructive labyrinth of doubt, and delusion, confusion, and immorality, in the end, erroneously seeking Salvation through their own works and cunning.

The Dark Art of Deception: Why Dinosaurs are a Hoax

"The ancient Romans built roads across Europe, the Middle East and North Africa during which time they excavated enormous quantities of sedimentary rock. They also built extensive ramparts, stadiums, amphitheaters, aqueducts and other structures of considerable size, all of which involved extracting large amounts of soil and rubble from the earth. But never once did they record the discovery of a dinosaur fossil, or the preserved remains of an animal skeleton similar to a 'dinosaur' or giant reptile. The Greeks, Persians and Egyptians also built great cities and, in doing so, quarried millions of tons of sedimentary stone and displaced great quantities of sub-soil.

Yet, these advanced civilizations left no record of dinosaur finds. Both Aristotle and Pliny the Elder, men of great intellectual ability, made a detailed study of the natural world and were constantly enquiring after fresh information about foreign lands from travelers and explorers. Both took a great interest in unusual phenomena – botanical, zoological, geological, celestial, and so forth – that might shed further light on their scientific enquiries. Had any dinosaur skeletons been found anywhere in the known

world at that time, these men would have been keenly interested in the details. But their extant writings make no reference to large animal fossils. Dinosaurs were only 'discovered' in the 19th century.

In fact, until the mid-19th century, the possible existence at some time in history of giant dinosaur-like creatures had not even been suggested. Myths and legends abounded, of course, but the exotic creatures depicted in these stories were, in general, exaggerated hybrids of existing fauna. From time to time a new species was discovered and stories about a fabulous new land would circulate, but in the entire literature of ancient civilizations we find no consistent and discernible reference to creatures – natural creatures, whether living or fossilized – akin to what zoologists today call dinosaurs.

Should we be surprised by this? For some reason this is not a question that modern students of biology seem to ask. The separation of knowledge into discrete branches by our universities and colleges has led to a marked inability to frame and pursue questions of this kind. One of thousands of open pit mines around the world. Dinosaur bones are never found in any of them. Yes, we should be greatly surprised. The reason is very simple: If dinosaurs existed on the earth for millions of years, then they should have left a record so extravagant and so extensive that it would be virtually impossible to excavate any part of the earth and not find some evidence of their fossilized remains. The ancient Romans, Greeks, Persians, Egyptians, Babylonians, Assyrians, and Sumerians should have accumulated great quantities of largely intact dinosaur skeletons.

And as they built the Great Wall in 200 BC, the Chinese should have unearthed tens of thousands of impressive femurs and jaw-bones, great domed skulls and enormous fossilized rib-cages. But they didn't. No-one found anything. A million years is a very, very long time. Yet zoologists tell us that dinosaurs roamed the earth for 165 million years. Just imagine for a moment the mountain of sturdy bones that such a staggering population would have produced. If only one animal in a million left a fossilized skeleton

and the population density was a mere ten individuals per square mile, then there should be several large, as yet undiscovered dinosaur fossils within a mile of your home, plus dozens of smaller specimens.

Even though these assumptions are highly conservative, they point to the obvious fact that fossilized dinosaur remains should be extremely plentiful over most of the earth. Why then are they only ever found by 'experts' and only in remote locations? Why are there so few specimens in museums around the world? And why do so many of these feeble specimens consist of just a few bones? Despite the multiplicity of missing parts, entire animals, including their environment, are reconstructed from very little fossilized material. The artist has taken over from the scientist! Anything he chooses to sketch is accepted as reality and absurd conclusions are drawn – literally – from non-existent evidence.

Outrageous claims. In our earlier paper on the great hoax known as Evolution, we showed how bone fragments from pigs and primates were used to construct new species of hominid. In their determination to disprove the Bible and postulate a greatly inflated age for the earth, these 'scientists' were prepared to make the most outrageous claims based on nothing but their imagination, their unbounded arrogance, and their intense hatred of Christianity. In 1922, H F Osborn – a world famous expert on fossils (see photo) – declared, on the basis of the tooth shown above, that a new species of hominid had been discovered, dubbed 'Nebraska Man'. An artist's impression of what this 'man' looked like was published widely in the press in both America and Europe (see above). The fossil turned out to be the tooth of a peccary, a type of pig (see photo) and an official retraction was published in 1927. Osborn also described and named the 'dino'.

There was one major difficulty with this ingenious scam. If the world had been populated for 165 million years by a staggering variety of exotic reptilian creatures, then one would surely expect to find great numbers still in existence today. Since there are obviously no dinosaurs anywhere on earth

today, the Masonic tricksters behind this hoax needed a plausible way to explain their disappearance. Accordingly, it was claimed that the entire population of dinosaurs on earth – thousands of millions of individuals – were suddenly wiped out in a major catastrophic event. The tricksters also took advantage of the need to postulate such an event to reinforce the false idea of 'outer space' – another important element in the great End Time deception. They claimed that a huge asteroid collided with the earth about 65 million years ago and caused such a sharp fall in atmospheric temperature that the unfortunate creatures, being cold-blooded animals, were unable to survive. Only very small, warm-blooded creatures – the early mammals – were able to endure the cold. Science Fiction A 'giant asteroid' strikes the earth – another fictitious detail in the great Masonic hoax. Outer space is a myth, giant asteroids do not exist, and dinosaurs were not 'wiped out' 65 million years ago.

As we noted in earlier papers, the Babylonian Elite who control this world like their lies to interconnect. Good lies should sound plausible, and really good lies should seem like scientific revelations packed with explanatory power. Just look at the number and variety of lies that are exploited and reinforced in this fantastic scenario: an incredibly ancient earth [lie], spinning in space [lie], is struck by a huge asteroid [lie] that kills off all the dinosaurs on the 'planet' [lie] in a major extinction event [lie]; fortunately enough tiny mammalian creatures survived to evolve [lie] into the diversity of animal life forms – including man [lie] – that we see today. High-school propaganda This is presented as science in our schools and colleges but it is complete nonsense. The earth is both flat and stationary; there is no such region as 'outer space'; there are no asteroids; the earth is only a few thousand years old; dinosaurs never existed; and mammals never evolved. In short, the earth and its history are exactly as described in the Bible.

This counterfeit reality can be kept alive only by constant positive reinforcement, just like the propaganda fed to the benighted population of a

communist state. Every kindergarten has a globe, a model dinosaur, and a picture of the 'solar system'. Television programs are saturated with similar images, as are movies and comic books. In addition, the world media give regular news reports and updates on miscellaneous non-existent phenomena such as images from the Martian surface, transmissions for a space probe as it travels past Neptune, or the electromagnetic effects of the latest solar flare. We are constantly reading about newly discovered planets, black holes, and water on the moon. The entire 'universe', it seems, is bubbling with strange cosmic phenomena – and yet the only evidence we have for any of this is what NASA tells us! The Myth Machine NASA stands with Hollywood and Disneyland as one of the three greatest producers of Babylonian propaganda on earth. However, while the public are dimly aware that both Hollywood and Disneyland are working entirely in the realm of fantasy, they are convinced that NASA deals only with scientific reality.

This means the lies it tells are unusually potent. Did you know that three men dressed only in nylon pajamas travelled to the moon in an aluminum can in 1969? (Of course, they did because NASA told us so.) And two of them got into another aluminum can and descended onto the 'lunar surface'. (Of course, they did because NASA told us so.) And they suffered no harm from cosmic rays, scorching heat or freezing temperatures because their magic pajamas protected them. (Of course, they did because NASA told us so.) It would come as a great shock to most people if they knew that the moon is not a massive globe located 240,000 miles away, but a relatively small disc about thirty miles or so in diameter and that it travels daily in a circular path about 4000 miles directly above the earth.

How did the architects behind the cunning NASA deception know that they would be able to fool the world for so long? Well, one reason was the success they already had in getting mankind to believe, first, in a rotating spherical earth, then in a prehistoric earth of great antiquity, and, later, in the existence of giant reptiles called dinosaurs. They offered no tangible evidence

for the first two lies, and just a few pathetic museum exhibits to back up the last. They even got the world to believe that two 'atomic bombs' had destroyed the cities of Hiroshima and Nagasaki in August 1945, when in reality these unfortunate cities were destroyed by intensive fire-bombing, just like seventy other Japanese cities. The Original Dinosaur The word 'dinosaur' was derived from two Greek words meaning 'terrible' and 'reptile.' They were given this name by their 'inventor', the English paleontologist, Sir Richard Owen in 1842. Two other Englishmen, Gideon Mantell and William Buckland, had previously, and independently, come across large, fossilized bones which they had been unable to associate with any known animal species. Mantell believed the earth may have been inhabited at some time in the distant past by some unusually large reptiles, but it was Owen who took the unwarranted step of asserting that this hypothesis was a proven scientific fact. To his credit, Buckland understood that the worldwide Flood described in Genesis would have caused a major dislocation and redistribution of animal carcasses, making it difficult to draw any hard conclusions as to which fossils belonged to which species. The iguana and the crocodile provided Richard Owen with the basic prototype for his 'dinosaurs'.

As the 19th century progressed and British scholars pushed more and more for explanations of natural phenomena that disproved the Bible, the Flood was forgotten and unquantifiably long periods of time became the norm in geology, paleontology, and astronomy. The great advantage with epochs spanning millions of years was the scope they gave for postulating new theories without ever having to actually prove anything. Whatever the experts agreed among themselves, no matter how absurd, became the accepted scientific position. It also happened that most of the experts – a cozy group of connected individuals – were Anglicans who had graduated from Oxford and Cambridge.

Richard Owen, inventor of the dinosaur. Fossil Fraud Another problem, right from the time fossil collecting became popular in England, was the

temptation to commit fraud. A good specimen could attract a high price on the open market. Basic questions regarding provenance and authenticity were set aside in the race to discover something new and make a name for oneself. For example, there was no way to establish whether a specimen was genuine or if the fossil had been fabricated and buried in a location where it was sure to be discovered by enthusiastic fossilists. Lyme Regis in Dorset became famous across Europe as a source of major finds, though the experts were at a loss to explain how, over millions of years, so many prime specimens had managed to expire beside the same small village in southern England. Even a brief inspection of the annals of fossil hunting and fossil 'reconstruction' will reveal how easily it lent itself to fraud. The scientists always seemed to find what they wanted to find. Fraudulent finds could be arranged quite easily and another dinosaur species – another proof of evolution and an ancient earth – could be added to the shelves of the Natural History Museum in London. Oddly enough, apart from occasional finds by fossil hunters in France, Germany, and the United States, the numbers recorded outside England were abysmally low. England had Mary Anning, a simple woman who roamed the beaches of Lyme Regis and made spectacular finds from time to time, but for some reason no other nation on earth had someone with her very peculiar gift for lifting rocks and finding prehistoric monsters.

What exactly is a fossil? It is commonly thought that a fossil is a bone fragment 'preserved' in a casing of rock, but this is a misconception. A fossil is a bone-shaped piece of rock whose contours have been defined, almost imperceptibly, by the shape of the bone buried in the sediment from which the rock was formed (Fossils are found only in sedimentary rock). There is no actual bone remaining; every one of its cells has been calcified or mineralized by ground water over a long period of time. Thus, there is no DNA in a fossil – despite the claims made by science fiction writers. If that is the case, then how is it possible to distinguish the fossil from the rock? That is a very good question.

Seemingly one needs a trained eye to detect where the rock ends and the fossil begins. For some reason, the only people who have this skill are paleontologists. But what about the well-delineated fossils that we see in some museum specimens? Those which are genuine were formed in the Flood about 4,300 years ago when animal carcasses were carried off in great quantities by torrential ocean currents and funneled into large repositories of mud and bio-mass. Over time this material was compressed under its own weight and the embalmed bone fragments were calcified. The same cannot be said of dinosaurs. By definition they must have been entombed in a rock formation for at least 65 million years and subjected over all that time to immense compression. It would be impossible for any organic substance to retain its structural integrity in these circumstances over such a long period of time. This means that all of the large dinosaur fossils on display in museums today are fake.

Reasons Why Dinosaurs Are A Hoax:

In light of all this, we can conclude that dinosaurs are a hoax for the following reasons:

1. The group of scientists who claimed to have discovered them were almost all from the same community – English Oxbridge Anglicans – who, through their avowed Unitarianism and deism, were strongly biased in favor of any theory of the natural world that disproved the Bible.

2. The fossils they claimed to have found should have been so plentiful and so widely distributed that earlier civilizations should have discovered thousands of largely intact specimens and recognized that they did not derive from existing fauna.

3. The existence of fossils necessitated a theory of evolution in order to explain the emergence of today's animal species, notably the Mammalia class.

However, since the theory of evolution is itself a hoax, there is no way of explaining how today's animal species came into existence.

4. The fossil record itself is proof that evolution does not occur since, if it did, the record should be heavily populated with transitional forms, but these have not been found. The fabricators could have made transitional fossils to supplement the 'final' forms, but presumably the hoax was challenging enough without adding this further layer of complexity.

5. Most dinosaur species are speculative reconstructions based on bone fragments only. Fully intact dinosaur fossils are largely unknown. A contiguous assortment of bones is often ascribed arbitrarily to the same animal.

6. Fraud was widespread at the time dinosaur fossils were first discovered and has been a feature of this 'science' ever since. Many specimens have been accepted as authentic, and continue to be treated as authentic, when virtually nothing is known about their provenance and no scientifically convincing methodology has been used to verify their origin.

7. The dating techniques that are used to determine the age of a fossil are phony. A fossil is taken to be as old as the rock strata in which it is found, while the respective rock strata in turn are dated by reference to the age of the fossils normally found among them. This is circular reasoning.

8. Many of the dinosaur species that scientists claim to have existed, and on which considerable research has been conducted, are physiologically impossible. When dinosaurs were first proposed, in the 1840s, the science of animal physiology was in its infancy. The fossil fabricators did not realize just how preposterous their creations actually were. In their eagerness to come up with truly strange animals, they designed a creature which simply could not have existed. Here is just a short list of the glaring anatomical anomalies which prove that dinosaurs are works of fiction:

- Many are so oddly shaped, with most of their body weight distributed at the upper end, that they could not have maintained their balance while in motion.

- Many were so large that their bones and ligaments would have been unable to support their weight.

- Many would have needed enormously large hearts to pump the blood needed to supply their huge volume of tissue with oxygen. Relative to its overall size, no land-dwelling species today has a heart of that magnitude.

- Creatures of such enormous size would have needed a very efficient mechanism for losing excess heat, such as large flaps or cooling appendages. Most of the dinosaur species proposed by Paleontologists lack such a mechanism.

- Many species were so large that the cranial capacity needed to ensure efficient locomotion, especially under stress, was greater than the capacity of their fossilized skulls.

- Most of the dinosaur species proposed by paleontologists are supposed to be herbivores, subsisting entirely on vegetable matter, but the reptilian physiology of these alleged species conflicts with this assumption. Very few reptile species today are herbivores. The notable exceptions are iguanas and tortoises. All the rest – crocodiles, alligators, Caymans, monitors, geckos, and hundreds of species of lizard and snake – live on a diet of small ruminants, birds, fish, rodents, insects, eggs, and worms.

9. The vast majority of dinosaur exhibits in museums today are official replicas. The fossils themselves are too valuable to leave on public display, their curators claim, so professional fabrication companies are employed to make exact copies. This peculiar practice enables museums to avoid close inspection of the 'original' fossils by experts with the necessary forensic skills to expose the fraud. Many of the early fossil specimens would have been fairly amateurish by modern standards, probably consisting of materials –

such as bone fiber, resin, cement and plaster – whose constituents could be analyzed by a spectrometer or equivalent devices. These early fossils are now "in storage" for safe keeping and may be accessed only by qualified personnel. A Diplodocus at the Carnegie Museum of Natural History, Pittsburg, 'discovered' in 1899 and on display since 1907. The skeleton was 60 per cent intact when it was 'found'. This exotic creature was invented at a time when such an incredibly long neck was thought to be possible, both in terms of its physiology and in terms of its impact on the animal's balance. For these reasons alone, we know that Diplodocus never existed. It was fabricated by Carnegie's agents and buried in an obscure location where it just happened to be found.

10. If fossilization is a naturally occurring, universal process – without which the fossil record could not have accumulated – then one would have expected a far greater variety of animals to feature in the record. The early fossil fabricators did not pay enough attention to this question and allowed a fossil archive to become established which, inexplicably, excluded birds. The only way around this problem, once the anomaly was recognized, was to insist that birds 'evolved' after the dinosaurs had disappeared. But what did they evolve from? The fabricators were now in a tight spot and felt obliged to suggest that birds evolved from the last of the dinosaurs – just before the alleged worldwide extinction event 65 million years ago. This explanation was an embarrassment for all concerned, so efforts were made to discover a transitional fossil, one which exhibited features common to both dinosaurs and birds.

Eventually a fossil, the so-called Archaeoraptor, was discovered in northeastern China that expressed perfectly the cross-over characteristics they were looking for – having the bone structure of a primitive bird but the teeth and tail of a small terrestrial dinosaur. National Geographic announced their discovery with great satisfaction in November 1999, but hard questions were asked in this instance and, within months, the hoax was uncovered. Analysis

of X-rays of the specimen revealed that it was made up of three layers pasted together to produce a work of great commercial value. National Geographic was forced to apologize. The Archaeoraptor fossil which The National Geographic claimed in 1999 was conclusive evidence that birds 'evolved' from dinosaurs. The fossil was later shown to be a hoax.

11. Geological ages play a key role in this elaborate hoax. Evolution needs staggering amounts of time to produce by purely random means the biological adaptations that enhance the ability of a species to survive. In order to lend credence to this hypothesis, geologists claim to be able to discern the imprint of vast eons of time in the earth's crust. Rock strata possessing certain structural and chemical characteristics are assigned an "age" based on the fossils found among them. Similar rock strata in other parts of the world are then deemed to have been laid down during the same geological epoch. These "epochs" and their quaint subdivisions are then given elegant or impressive names to make them seem a little more credible – Precambrian, Quaternary, Pleistocene, Jurassic, Permian, Ordovician, Silurian, Devonian, and so forth. But they are all imaginary.

12. The dinosaur hoax was carried out by the same clique – British Luciferians, Freemasons, unitarians and deists, all of whom hate Christianity and are determined to destroy it – that also devised a host of other lies to discredit the Book of Genesis. They claim that the earth is a spinning globe, when in reality it is both flat and stationary; that the earth is billions of years old, when it is only a few thousand years old; that the 'universe' began with a 'big bang', where nothing became something, and this something then expanded and cooled to produce everything; that all life 'evolved' from lifeless chemical constituents; and that the earth is located in a 'solar system' at the periphery of a vast, dark, meaningless 'cosmos'. More Science Fiction A so-called 'black hole' sucks in the light around it because its gravitational pull is so strong. This is the kind of hypothetical nonsense that masquerades as 'science' today.

They also teach that, in terms of magnitude, the sun is 333,333 times larger than the Earth (an amazing Masonic coincidence) and 93 million miles away, when in reality it is moving along a circular path a few thousand miles above the earth and is less than forty miles in diameter; that explosive thermonuclear devices exist, when in reality the sub-atomic chain reaction needed to produce nuclear fission is simply impossible and the threat of nuclear war is nothing but a hoax to engender mass fear and feed geopolitical tensions; and they exploit the chicanery of Relativity Theory to concoct all kinds of absurd cosmic phenomena, such as black holes and white dwarves, when no such phenomena exist. To this we can add the entire gamut of related technological marvels such as space travel, moon landings, and satellites orbiting the earth, all of which are fraudulent. They are also world leaders in perpetuating the myth of manmade global warming and in implementing the wicked transgender agenda. In this context it is easy to see why dinosaurs – and the fantastic world in which they were supposed to exist – are a fabrication.

They were invented to convince mankind that the Biblical model of the earth is false and that we live on a spheroidal satellite of the sun which is spinning on its 'axis' and travelling through space at 18.5 miles a second (or 66,666 miles an hour – another Masonic coincidence). [By the way, the earth supposedly tilts on its 'axis' at an angle of 23.4 degrees or, if measured against the plane of the earth's path, 66.6 degrees!] This is Satan's alternative reality, where the earth is portrayed as a miserable speck at the edge of the 'universe' and man is nothing more than an insignificant chemical accident in the dark, freezing depths of space. Illuminati insider, Henry Fairfield Osborn, was the son of a prominent railroad tycoon. He 'invented' both the Tyrannosaurus Rex and the Velociraptor (see above). Both featured in dramatic scenes in Spielberg's movie Jurassic Park (1993). Neither of these creatures ever existed: they are all part of the great deception.

Satan's model requires mankind to believe in a 'universe' that doesn't actually exist, a cosmic emptiness millions of light-years across and billions of years old. It is by any reckoning a twisted, macabre conception, designed to demoralize humanity and provide a plausible cosmic theatre from which super-intelligent alien visitors will one day emerge. The Reformation and its aftermath It is surprising how many of the decisions that shaped the entire political and financial structure of the world were made in Britain or with her close participation. She cooperated closely with the United States in the reorganization of Europe after two world wars and the carve-up of the Ottoman Empire. It is also surprising how many of the decisions and 'discoveries' that affect our perception of the world, in scientific terms, also originated in Britain. She can also take credit for a long string of technological innovations, plus the worldwide transformation achieved through the industrial revolution. Britain has also been a world leader and trendsetter in literature, music and popular culture, and a major influence on the formation of the legal and administrative institutions in many other countries, including the United States. However, Britain has also been the principal source or a major player in the dinosaur hoax, the nuclear bomb hoax, the evolution hoax, the ancient earth hoax, the satellite and space travel hoax, the global warming hoax, the central banking scam, and the ongoing suppression of any information that would show that the world is both flat and stationary.

A key part of this suppression is an international treaty forbidding any nation from approaching the Antarctic (including the non-existent South Pole) without first securing UN approval. The earth as it is in reality. 16 In light of this, we need to understand why Britain has played such a central role in both shaping and deceiving the modern world For nearly a thousand years, between 500 and 1500 AD, the servants of Rome completely suppressed the Bible in most parts of Europe. Absolute political power was concentrated in the hands of a small group of Luciferian families. Subject to certain limits, they could exploit, imprison, torture and execute whomever they chose. By the year 1500 these families were developing the technology that would

enable them to extend their political influence to all parts of the world, including India and China. Within two or three centuries they could have expected to exercise centralized control over the entire earth.

But in 1517 disaster struck. The Reformation began and the Bible was suddenly accessible on a scale never previously known. We rightly give credit to Luther, Calvin, Huss, Zwingli, Knox, Tyndale and many other courageous individuals for the extraordinary work they did in opposing Rome and her false religious system. Nevertheless, the real power of the Reformation derived from one simple fact – the Word of God was now available to the common man. The fruit of this was abundantly evident in the sacrifice of the martyrs. Hundreds of thousands of Christians across Europe stood firm against the sword of Rome. The liberties we enjoy today were won at a terrible price, the blood of these faithful believers. (Sadly, the professing church today shows little appreciation for all that these wonderful men and women achieved on our behalf.) The martyrdom of Antipas in Pergamum.

In the wake of the Reformation, Satan needed a way to re-establish his hold over mankind. He began with the foundation of the Jesuit Order, which was granted Papal recognition in 1540. The Jesuits' ultimate goal was the destruction of Biblical Christianity and the creation of a New World Order, a centralized system of political control over all nations. By the start of the 20th century, most of the churches established on foot of the Reformation had been fatally infiltrated by their agents. They also succeeded in introducing a number of skeptical philosophies and schools of thought across Europe and America which greatly weakened public confidence in the completeness, accuracy and sufficiency of the Bible. 17 Satan's Headquarters

We rightly regard Rome as the main center on earth of pagan duplicity and intrigue, but the complete picture has some additional detail that we need to consider. Jesus told us in the Book of Revelation, around 95 A.D., that Satan had established his throne in Pergamos: "I know thy works, and where thou dwellest, even where Satan's seat is: and thou holdest fast my name, and

hast not denied my faith, even in those days wherein Antipas was my faithful martyr, who was slain among you, where Satan dwelleth." – Revelation 2:13 Our Lord is telling us that Satan has a base on earth from which he operates. It is important that we understand this! The "faithful martyr" Antipas, to whom Jesus referred, is believed to have been burned alive inside a brazen bull by an angry mob. The bull represented the Egyptian god Apis. Satan's base or headquarters was initially in Babylon, but it was later relocated to Pergamos (modern Bergama) in western Turkey, close to the locus of two major empires, the Roman and the Greek. When the gospel began to spread across the ancient world, the ruling Luciferian families in Europe selected Rome as their main center for controlling and disseminating the false version of Christianity known as the Roman Catholic faith.

In doing so they transferred to the Pope the pagan title of Pontifex Maximus, which implied that he was the official head of all religions on earth. The Pope is still known today as the Pontifex Maximus, a clear indication that the False Prophet of the Book of Revelation will hold the same office (The word Pontiff derives from the Latin word Pontifex, meaning bridge). Rome had become, and remains to this day, Satan's main base of operations on earth. The Reformation, however, caused immense disruption across Europe and made it necessary for the elite Luciferian families to establish a second base of operations, a 'Protestant' counterpart to 'Catholic' Rome. That base was London. 18 This move seems to have been brought about through a careful transfer of power and wealth via Venice, Vienna, Frankfurt and Amsterdam. The final step is known today as the 'Glorious Revolution' of 1688, when William III – of the House of Orange – landed at the English port of Brixham, marched on London, and was installed as the new monarch by an influential group of politicians and businessmen. Technically it was an 'invasion' but the entire operation was so skillfully managed that the associated military conflicts took place in Ireland and not in Britain, notably the Battle of the Boyne of 1690. In our previous study, Babylonian London, Nimrod, and the Secret War Against God, we outlined the way London was

redesigned after the Great Fire of 1666 to honor, through its monuments and architecture, the gods of Babylon.

From an esoteric perspective, the city is a temple from which the power of Lucifer is projected to the four corners of the world. Not long after William was installed the English introduced a nationwide network of occult lodges known as Freemasonry to promote the Babylonian religion. This network also served as a secret system of surveillance and control. Anyone of standing in the community was expected to join and take a binding oath to obey the 'worshipful master'. Since the head of the lodge, the so-called worshipful master, was in turn bound by an oath to a more senior member of the Masonic hierarchy, the oath taken by a new member locked him into a lifelong covenant with Lucifer, the 'capstone' on the pyramid of power. Reconstruction of the Pergamum Altar in the Pergamum Museum in Berlin, using material excavated from the actual site. The Babylonian cult of Freemasonry was used to infiltrate and direct the Anglican church in England, Scotland and Ireland. The British also used it to secretly control the colonies and other satellite states.

This explains why Freemasons continue to dominate the main institutions of power in the United States, Canada, Australia, New Zealand and countless other countries across the world. 19 The other major mechanism of control that the English introduced was central banking. The Bank of England was founded in 1694, very soon after William III 'conquered' Britain. As a privately owned institution, it allowed a small group of senior financiers to wield considerable power and influence from behind closed doors, free from public scrutiny, and to concentrate the main wealth-generating enterprises in the hands of insiders.

This has since been extended to virtually every country in the world and has enabled a small clique of insiders, working in concert, to completely dominate international finance and, through that, the world political system. The same clique that controls Britain also controls the US and most other

countries. They are not necessarily 'British' but comprise representatives from a network of closely connected generational Luciferian families that has wielded immense power on the world stage since the days of Pergamos. In so far as it has a center of operations, a place from which its worldwide reach is coordinated and financed, that center is London. Exhibit at the Creation Museum, Kentucky. How can a Christian institution put these fictional creatures on display and still claim it is teaching the truth of God's Word? The Dinosaur Hoax In the context of all this, the dinosaur hoax may seem more like a malicious prank carried out by a group of schoolboys than a vital component in a worldwide program of deception.

Why fabricate, bury, and then 'find' the fossilized remains of creatures that never existed? And, having 'found' them, why put them on display at great expense in scientific institutions across the world? These questions are easily answered if one understands the bigger picture, but they are sure to confound anyone who continues to think of paleontology as little more than an arcane discipline dedicated to collecting and classifying 'cold hard facts' long buried in the earth. Satan is one of the most powerful and most gifted beings ever created, but he is locked in a titanic struggle for his own survival. So too are the millions of fallen angels who serve him. He will use every form of deception and every trick he can think of to lure mankind further from God's Holy Word. 20 Toward this end he has conjured up an alternative reality for mankind, a remarkably cunning piece of fiction that conflicts in countless ways with Biblical truth. He has lured the masses into believing his phony 'scientific' reality and rejecting the account given in Scripture – which tells us how the world actually is. So many elements have been added to this false reality, reinforced endlessly through television and movies, that few today seem able or willing to question it. But Christians who believe in God's Word ought to question it! They should take to heart the great warning that Jesus gave to every believer in his Olivet discourse when he spoke of the End Time – "Take heed that no man deceive you." (Matthew 24:4) Some would argue that Jesus was referring to impostors who will pose as Christ – and,

broadly speaking, they are right. But impostors, like all deceivers, need a way to carry out their deception.

The further a person is removed from Biblical truth – which describes the world as it actually is – and believes instead in Satan's false reality, the more susceptible he is to further deception. The agents of Satan know that their chances of success are far greater, by many orders of magnitude, if mankind has already been tricked into believing in remote earth-like planets populated by highly evolved life-forms, that life on earth was 'seeded' by super-intelligent beings from a distant galaxy or a higher dimension, and that science, technology, and creative imagination are the key to salvation. Unassuming centers of deception One of the first great centers of deception was the Natural History Museum in Kensington, London, which opened in 1881. Its founder was Richard Owen, who invented the myth of the dinosaur. As a reward he was made a Knight of the Order of the Bath – one of the highest and most distinguished orders of British chivalry. Diplodocus at the Natural History Museum in London The so-called Diplodocus in the entrance hall has impressed millions of visitors since it was first installed in 1905. I remember well my own excitement when I went to see it in 1978. I remember also my great disappointment when I failed to find even one shred of evidence that would convince me it was genuine. 21 Even then I was troubled by the lack of scientific authenticity surrounding the whole study of dinosaurs and fossils. The version at the Museum is a replica of one supposedly discovered in Wyoming, which was 'reconstructed' by 'experts' at the Carnegie Museum in Pittsburg in 1898. The funding for this expensive exercise was provided by the Scottish multi-millionaire, Andrew Carnegie – one of the Illuminati kingpins of that era.

The replica in London was not the only one shipped from Pittsburg. In all ten were delivered to museums around the world, including Paris, Berlin, Vienna and Moscow. In other words, not one of these museums stocked a 'genuine' fossilized Diplodocus, but only a copy of one 'reconstructed' by

'experts.' The new exhibits were widely publicized in newspapers across Europe, thereby reinforcing in the popular imagination the idea that dinosaurs were real. Thousands of visitors sojourned annually to see the huge exotic creature which had allegedly been preserved in the earth for 140 million years! It is doubtful whether any of them realized that the whole thing was a hoax. Dinosaur Fabrication Most dinosaur fossils have been found by just a handful of professionals, nearly all in a few select locations around the world, such as Argentina and Utah. When a promising rock fragment is found, often weighing several tons, it is shipped back to a specialist museum where a team of experts chisel away at it for months until a fossil finally emerges.

The resulting fossil is usually indistinguishable from the rock in which it was encased. The so-called fossil may comprise no more than a single bone, but from such trivial 'evidence' a complete dinosaur is constructed. Indeed, from time to time, an entirely new species is unveiled to the world. Such is the 'science' of paleontology! Dinosaur factory in Zigong City, Sichuan, China 22 The 'fossilized dinosaur skeletons' on pages 23 and 24 below were all fabricated by the same factory in Sichuan. These, and more like them, are shipped to museums and exhibition centers all over the world. As far as the public is concerned they are real. Even if we are told that the exhibit is a 'replica' we are asked to believe it is a replica of something that is genuine. But it isn't. Compare them with the four exhibits on show in museums in America and Europe shown on page 25. Given that the Sichuan 'replicas' are destined for museums around the world, we can assume the four shown on page 25 were also made in China. Scientific Fraud Most schoolchildren are conditioned to believe that, while science may be dull and repetitive, it always deals with actual data and that its findings are truthful. Alas, this is far from being the case. The temptation to compile imaginary data to support a particular theory can be too strong for many 'objective' scientists. Whistleblowers have revealed that the pharmaceutical industry routinely modifies trial results to secure official approval for a new drug. In such

instances, the motivation is profit, but other factors, political or professional, may also provide an incentive.

Following a scientific symposium in 2015, Dr Richard Horton, then editor-in-chief of the Lancet, the prestigious medical journal, made the following observation in a startling editorial piece: "A lot of what is published is incorrect." I'm not allowed to say who made this remark because we were asked to observe Chatham House rules. We were also asked not to take photographs of slides…Why the paranoid concern for secrecy and non-attribution? Because this symposium – on the reproducibility and reliability of biomedical research... – touched on one of the most sensitive issues in science today: the idea that something has gone fundamentally wrong with one of our greatest human creations. The case against science is straightforward: much of the scientific literature, perhaps half, may simply be untrue. Afflicted by studies with small sample sizes, tiny effects, invalid exploratory analyses, and flagrant conflicts of interest, together with an obsession for pursuing fashionable trends of dubious importance, science has taken a turn towards darkness. As one participant put it, "poor methods get results".

The apparent endemicity of bad research behavior is alarming. In their quest for telling a compelling story, scientists too often sculpt data to fit their preferred theory of the world. Or they retrofit hypotheses to fit their data... And individual scientists, including their most senior leaders, do little to alter a research culture that occasionally veers close to misconduct. 23 24 ****** 25 Location of exhibits on this page (top to bottom): Natural History Museum, New York City Museum of Comparative Zoology, Harvard University Journey Museum, Rapid City, South Dakota Museum of Natural Sciences, Brussels 26 He is saying that something has gone 'fundamentally wrong' with scientific research; that as much as half of the papers purporting to be scientific are actually bogus; and that science itself has taken 'a turn toward darkness.' These are certainly strong words from someone who has a close familiarity with the inner workings of the scientific establishment.

When a person of Dr Horton's standing makes such a chilling declaration in a major scientific journal, we can be sure the malaise afflicts many other branches of science and not just medicine. Dr Horton is not alone. Dr Marcia Angell, long-time editor-in-chief of the New England Journal of Medicine, another prestigious peer-reviewed medical journal, made a similar claim: It is simply no longer possible to believe much of the clinical research that is published, or to rely on the judgment of trusted physicians or authoritative medical guidelines. I take no pleasure in this conclusion, which I reached slowly and reluctantly over my two decades as an editor of the New England Journal of Medicine. In light of these startling admissions, it is easier to understand why certain branches of science were hijacked long ago for political purposes. Evolution is one of these. So too are paleontology and astronomy. Foucault's Pendulum The French scientist, Léon Foucault (1819-1868), was responsible for two classic examples of scientific experiments, both fraudulent, that were intended to have a direct bearing on how we perceive the world around us.

The first was his famous pendulum, 220ft long, which swung beneath the central dome of the Panthéon in Paris. Huge crowds came to watch as the sphere traced out a complete circle in the course of the day, allegedly because the earth was rotating beneath it. Of course as proof of the earth's rotation it was completely bogus since, even if the earth did rotate, the pendulum would trace out a circle at the north and south poles only. Foucault had obviously installed a mechanism in the pivot, out of public view, which caused the pendulum to make a circle every twenty-four hours. 27 Foucault's Pendulum, as it was known, was installed in many other cities across Europe and attracted a great deal of public attention. It was a clever way of convincing the masses that, contrary to the cosmology of the Bible, the earth was a rotating sphere. Foucault was made a member of the Royal Society in London, a great distinction for a Frenchman.

This may have been a reward for his pendulum hoax. He was also responsible for another, less well known, hoax. It too was intended to prove that the earth is a rotating sphere. While conducting experiments with a gyroscope – see graphic below – he found a way to keep the rotor spinning for several hours without interfering with its operation. This unusual device displays what scientists call 'rigidity of space'. This means that, once it is set in motion, with the central wheel or rotor spinning at high speed, it will continue to maintain exactly same attitude or orientation in absolute space even when the device as a whole is carried about the room. Foucault claimed that, if the frame of the gyroscope was fixed in the same location, the spinning rotor would turn very slowly over a period of several hours in response to the rotation of the earth, thereby maintaining the same attitude in relation to absolute space. He even claimed to have proven this experimentally. This would certainly be a strong proof that the earth was rotating – were the gyroscope actually doing what Foucault had claimed. But it wasn't.

A few skeptical scientists tried to duplicate his results and found that the gyroscope did not turn in response to the supposed rotation of the earth. Foucault had been lying. So, while Foucault in France was concocting clever ways to deceive the public into believing that the earth was a rotating sphere, Richard Owen in England was preparing museum exhibits that would convince the public that the earth was millions of years old. A few cunning individuals, with the necessary funding and institutional backing, can deceive an awful lot of people. 28 CO8CLUSIO8 In the same way that a stage magician employs illusion and misdirection to deceive his audience, the agents of Satan have for centuries been implementing on the world stage a set of cleverly interconnected lies to mislead and deceive mankind. The world is run by a small group of highly intelligent, extremely wealthy individuals who are more devious and deceitful than would seem humanly possible. They work closely with their infernal master in the supernatural realm to implement his

schemes and draw mankind completely under his spell. Christians must start thinking far more seriously about the world they live in.

Do they see it as God described it in His Word, or do they see it through the distorting lens that Satan is using to lead humanity astray and open a path for the Antichrist? They seem to have forgotten that the "children of wickedness" are as busy today as they were in ancient times, that they hate the righteous, that they take pleasure in deception, that they devise dark schemes behind closed doors, and that they worship a 'god' who loathes the LORD God of the Bible. Christians need to reflect deeply and prayerfully on the words of Jesus: "Ye are of your father the devil, and the lusts of your father ye will do. He was a murderer from the beginning, and abode not in the truth, because there is no truth in him.

When he speaketh a lie, he speaketh of his own: for he is a liar, and the father of it." (John 8:44) Take note! Their spiritual father is both a liar and a murderer. As his principal agents, they are consummate liars and masters of deception. And as murderers they routinely use their immense powers of persuasion – yet more lies – to control nations, foment strife, start wars, and kill millions of innocent people. It is this sinister clique, "the children of wickedness" (1 Chronicles 17:9), who invented the great lies – dinosaurs, evolution, outer space, moon landings, a spherical earth, and all the rest – that are leading the nations ever closer to destruction:

"For there is no faithfulness in their mouth;

their inward part is very wickedness;

their throat is an open sepulcher;

they flatter with their tongue."

(Psalm 5:9)

-- by Jeremy James
http://www.zephaniah.eu/index_htm_files/The%20Dark%20Art%20of%20Deception%20-%20Why%20Dinosaurs%20are%20a%20Hoax.pdf

Reasons for the Dinosaur Hoax

To enumerate, there are at least TWO really good reasons for the Freemasons to fabricate The Dinosaur Deception:

1.) To make The Creator seem powerless to save his Creation, Mankind, in the face of whatever type Extinction Level Event supposedly wiped out the Dinosaurs. Such a constant extinction level threat would indicate Man's tenuous insignificance, a mere creature like The Dinosaur, who could easily be wiped away by the Impersonal, Chaotic, and Mechanistic God of The Epistemological Masonic Cartel: **The Cold Impersonal, Heartless, Lethal, Pantheistic Universe.**

2.) Often Scientism Priests claim that a massive asteroid that hit The Earth some astronomically distant time in the past and wiped out everything. This is a clever ruse to make the Earth appear older than it really is, which serves to give more credibility their unproven Theory of Evolution.

Dinosaurs are a Hoax

To this day, no one has ever excavated a complete dinosaur skeleton. Hence, the various species of dinosaurs are all artists imaginations. Before the 1800's nobody had ever heard of a "dinosaur", nor had anyone throughout the ages discovered a single "dinosaur fossil." This includes every single culture from around world, from native Americans to Ancient Egyptians. The prehistoric monsters seen in museum exhibits are plaster casts. "Real" dinosaur bones are only allowed to be seen by a special group of government appointed Paleontologists. The whole

dinosaur industry is propaganda created as a way to validate Darwin's false theory of evolution.

Luciferianism: The Religion of Apotheosis

Luciferianism constitutes the nucleus of the ruling class religion. While there are definitely political and economic rationales for elite criminality, Luciferianism can account for the longevity of many of the oligarchs' projects. Many of the longest and most brutal human endeavors have been underpinned by some form of religious zealotry. The Crusades testify to this historical fact. Likewise, the power elite's ongoing campaign to establish a socialist totalitarian global government has Luciferianism to thank for both its longevity and frequently violent character. In the mind of the modern oligarch, Luciferianism provides religious legitimacy for otherwise morally questionable plans.

Luciferianism is the product of religious engineering, which sociologist William Sims Bainbridge defines as "the conscious, systematic, skilled creation of a new religion" ("New Religions, Science, and Secularization," no pagination). In actuality, this is a tradition that even precedes Bainbridge. It has been the practice of Freemasonry for years. It was also the practice of Masonry's religious and philosophical progenitors, the ancient pagan Mystery cults. The inner doctrines of the Mesopotamian secret societies provided the theological foundations for the Christian and Judaic heresies, Kabbalism and Gnosticism. All modern Luciferian philosophy finds "scientific" legitimacy in the Gnostic myth of Darwinism. As evolutionary thought was popularized, variants of Luciferianism were popularized along with it (particularly in the form of secular humanism, which shall be examined shortly). A historical

corollary of this popularization has been the rise of several cults and mass movements, exemplified by the various mystical sects and gurus of the sixties counterculture. The metastasis of Luciferian thinking continues to this very day.

Luciferianism represents a radical revaluation of humanity's ageless adversary: Satan. It is the ultimate inversion of good and evil. The formula for this inversion is reflected by the narrative paradigm of the Gnostic Hypostasis myth. As opposed to the original Biblical version, the Gnostic account represents a "revaluation of the Hebraic story of the first man's temptation, the desire of mere men to 'be as gods' by partaking of the tree of the 'knowledge of good and evil'" (Raschke 26). Carl Raschke elaborates:

In The Hypostasis of the Archons, an Egyptian Gnostic document, we read how the traditional story of man's disobedience toward God is reinterpreted as a universal conflict between "knowledge" (gnosis) and the dark "powers" (exousia) of the world, which bind the human soul in ignorance. The Hypostasis describes man as a stepchild of Sophia ("Wisdom") created according to the "model" of Aion, the imperishable realm of eternity. On the other hand, it is neither God the Imperishable nor Sophia who actually is responsible in the making of man. On the contrary, the task is undertaken by the archons, the demonic powers who, because of their "weakness," entrap man in a material body and thus cut him off from his blessed origin. They place him in paradise and enjoin him against eating of the tree of knowledge. The prohibition, however, is viewed by the author of the text not as a holy command but as a malignant effort on the part of the inferior spirits to prevent Adam from having true communion with the High God, from gaining authentic gnosis.

According to this bowdlerization, Adam is consistently contacted by the High God in hopes of reinitiating man's quest for gnosis. The archons intervene and create Eve to distract Adam from the pursuit of gnosis). However, this Gnostic Eve is actually a "sort of 'undercover' agent for the

High God, who is charged with divulging to Adam the truth that has been withheld from him". The archons manage to sabotage this covert operation by facilitating sexual intercourse between Adam and Eve, an act that Gnostics contend was designed to defile the "woman's spiritual nature". At this juncture, the Hypostasis reintroduces a familiar antagonist from the original Genesis account:

But now the principle of feminine wisdom reappears in the form of the serpent, called the "Instructor," who tells the mortal pair to defy the prohibition of the archons and eat of the tree of knowledge.

The serpent successfully entices Adam and Eve to eat the forbidden fruit, but the "bodily defilement" of the woman prevents man from understanding the true motive underpinning the act. Thus, humanity is fettered by the archons' "curse", suggesting that the "orthodox theological view of the violation of the command as 'sin' must be regarded anew as the mindless failure to commit the act rightly in the first place". In this revisionist context, the serpent is no longer Satan, but is an "incognito savior" instead. Meanwhile, God's role as benevolent Heavenly Father is vilified:

The God of Genesis, who comes to reprimand Adam and Eve after their transgression, is rudely caricatured in this tale as the "Arrogant archon" who opposes the will of the authentic heavenly father.

Of course, within this Gnostic narrative, God incarnate is equally belittled. Jesus Christ, the Word made flesh, is reduced to little more than a forerunner of the coming Gnostic adept. According to the Gnostic mythology, Jesus was but a mere "type" of this perfect man. He came as a "teacher and an exemplar, to show others the path to illumination". The true messiah has yet to come. Equally, the serpent is only a precursor to this messiah. He only initiates man's journey towards gnosis. The developmental voyage must be further facilitated by the serpent's predecessor, the Gnostic

Christ. The Hypostasis provides the paradigmatic template for all Luciferian mythologies.

Like the Hypostasis, the binary opposition of Luciferian mythology caricatures Jehovah as an oppressive tyrant. He becomes the "archon of arrogance," the embodiment of ignorance and religious superstition. Satan, who retains his heavenly title of Lucifer, is the liberator of humanity. Masonry, which acts as the contemporary retainer for the ancient Mystery religion, reconceptualizes Satan in a similar fashion. In Morals and Dogma, 33rd degree Freemason Albert Pike candidly exalts the fallen angel:

LUCIFER, the Light-bearer! Strange and mysterious name to give to the Spirit of Darkness! Lucifer, the Son of the Morning! Is it he who bears the Light, and with its splendors intolerable blinds feeble, sensual, or selfish Souls? Doubt it not.

He makes man aware of his own innate divinity and promises to unlock the god within us all. This theme of apotheosis underpinned both Gnosticism and the pagan Mystery religions. While Gnosticism's origins with the Ancient Mystery cults remains a source of contention amongst scholars, its promises of liberation from humanity's material side is strongly akin to the old pagan Mystery's variety of "psychic therapy". In addition, the Ancient Mystery religion promised the:

opportunity to erase the curse of mortality by direct encounter with the patron deity, or in many instances by actually undergoing an apotheosis, a transfiguration of human into divine .

Like some varieties of Satanism, Luciferianism does not depict the devil as a literal metaphysical entity. Lucifer only symbolizes the cognitive powers of man. He is the embodiment of science and reason. It is the Luciferian's religious conviction that these two facilitative forces will

dethrone God and apotheosize man. It comes as little surprise that the radicals of the early revolutionary faith celebrated the arrival of Darwinism. Evolutionary theory was the edifying "science" of Promethean zealotry and the new secular religion of the scientific dictatorship. According to Masonic scholar Wilmshurst, the completion of human evolution involves man "becoming a god-like being and unifying his consciousness with the Omniscient".

During the Enlightenment, Luciferianism was disseminated on the popular level as secular humanism. All of the governing precepts of Luciferianism are encompassed by secular humanism. This is made evident by the philosophy's rejection of theistic morality and enthronement of man as his own absolute moral authority. While Luciferianism has no sacred texts, Humanist Manifesto I and II succinctly delineate its central tenets. Whittaker Chambers, former member of the communist underground in America, eloquently summarizes this truth:

"Humanism is not new. It is, in fact, man's second oldest faith. Its promise was whispered in the first days of Creation under the Tree of the knowledge of Good and Evil: 'Ye shall be as gods.'

Transhumanism offers an updated, hi-tech variety of Luciferianism. The appellation "Transhumanism" was coined by evolutionary biologist Julian Huxley ("Transhumanism," Wikipedia: The Free Encyclopedia, no pagination). Huxley defined the transhuman condition as "man remaining man, but transcending himself, by realizing new possibilities of and for his human nature". However, by 1990, Dr. Max More would radically redefine Transhumanism as follows:

Transhumanism is a class of philosophies that seek to guide us towards a posthuman condition. Transhumanism shares many elements of humanism, including a respect for reason and science, a commitment to progress, and a valuing of human (or transhuman) existence in this life… Transhumanism

differs from humanism in recognizing and anticipating the radical alterations in the nature and possibilities of our lives resulting from various sciences and technologies.

Transhumanism advocates the use of nanotechnology, biotechnology, cognitive science, and information technology to propel humanity into a "posthuman" condition. Once he has arrived at this condition, man will cease to be man. He will become a machine, immune to death and all the other "weaknesses" intrinsic to his former human condition. The ultimate objective is to become a god. Transhumanism is closely aligned with the cult of artificial intelligence. In the very influential book The Age of Spiritual Machines, AI high priest Ray Kurzweil asserts that technological immortality could be achieved through magnetic resonance imaging or some technique of reading and replicating the human brain's neural structure within a computer ("Technological Immortality," no pagination). Through the merger of computers and humans, Kurzweil believes that man will "become god-like spirits inhabiting cyberspace as well as the material universe".

Following the Biblical revisionist tradition of the Gnostic Hypostasis myth, Transhumanists invert the roles of God and Satan. In an essay entitled "In Praise of the Devil," Transhumanist ideologue Max More depicts Lucifer as a heroic rebel against a tyrannical God:

The Devil—Lucifer—is a force for good (where I define 'good' simply as that which I value, not wanting to imply any universal validity or necessity to the orientation). 'Lucifer' means 'light-bringer' and this should begin to clue us in to his symbolic importance. The story is that God threw Lucifer out of Heaven because Lucifer had started to question God and was spreading dissension among the angels. We must remember that this story is told from the point of view of the Godists (if I may coin a term) and not from that of the Luciferians (I will use this term to distinguish us from the official

Satanists with whom I have fundamental differences). The truth may just as easily be that Lucifer resigned from heaven.

According to More, Lucifer probably exiled himself out of moral outrage towards the oppressive Jehovah:

God, being the well-documented sadist that he is, no doubt wanted to keep Lucifer around so that he could punish him and try to get him back under his (God's) power. Probably what really happened was that Lucifer came to hate God's kingdom, his sadism, his demand for slavish conformity and obedience, his psychotic rage at any display of independent thinking and behavior. Lucifer realized that he could never fully think for himself and could certainly not act on his independent thinking so long as he was under God's control. Therefore he left Heaven, that terrible spiritual-State ruled by the cosmic sadist Jehovah and was accompanied by some of the angels who had had enough courage to question God's authority and his value-perspective.

More proceeds to reiterate 33rd Degree Mason Albert Pike's depiction of Lucifer:

Lucifer is the embodiment of reason, of intelligence, of critical thought. He stands against the dogma of God and all other dogmas. He stands for the exploration of new ideas and new perspectives in the pursuit of truth.

Lucifer is even considered a patron saint by some Transhumanists ("Transtopian Symbolism," no pagination). Transhumanism retains the paradigmatic character of Luciferianism, albeit in a futurist context. Worse still, Transhumanism is hardly some marginalized cult. Richard Hayes, executive director of the Center for Genetics and Society, elaborates:

"Last June at Yale University, the World Transhumanist Association held its first national conference. The Transhumanists

have chapters in more than 20 countries and advocate the breeding of "genetically enriched" forms of "post-human" beings. Other advocates of the new techno-eugenics, such as Princeton University professor Lee Silver, predict that by the end of this century, "All aspects of the economy, the media, the entertainment industry, and the knowledge industry [will be] controlled by members of the GenRich class. . .Naturals [will] work as low-paid service providers or as laborers. . ."

With a growing body of academic luminaries and a techno-eugenical vision for the future, Transhumanism is carrying the banner of Luciferianism into the 21st century. Through genetic engineering and biotechnological augmentation of the physical body, Transhumanists are attempting to achieve the very same objective of their patron saint.

I will ascend into heaven, I will exalt my throne above the stars of God: I will sit also upon the mount of the congregation, in the sides of the north: I will ascend above the heights of the clouds; I will be like the Most High. (Isaiah 14:13-14)

This declaration reflects the aspirations of the power elite as well. Whatever form the Luciferian religion assumes throughout the years, its goal remains the same: Apotheosis."

-- by Phillip D. Collins ©, Jan. 10th, 2006http://www.conspiracyarchive.com/2014/05/14/luciferianism-the-religion-of-apotheosis/

Gnostic Sophia is Lucifer

It is no accident that the Artificial Intelligence robot, Sophia, was unveiled to the world as the crowning representation of the trajectory of New Age Luciferian Transhumanism. In Gnostic myth, Sophia, who descends

from The Creator down into the lower realms that, through here suffering, result in Earth, is similar to the Fall of Lucifer. Both become the Light of Enlightenment for Man, both giving the Promethean Fire of intelligence to Mankind so that Man may become God, himself, through this secret knowledge.

The Gnostic Myth of Sophia

Have you ever heard of Gnosis? Or of the Gnostics of old, often associated with early Christianity? I know you've heard of Mother Earth – since we're all riding around on her all of the time – or of Mother Nature, or Gaia, whom we all love to visit on holidays. We tend to bring her all of our problems, and she can always make them go away, for a little while. So why is it that we have this understanding of the benevolent feminine nature of the world, but we don't seem to let it shape our reality the way it could? Is it that we simply don't know any better? I don't think so. I think we've always known better.

Long ago (and even today), people knew better, and the knowledge they had (and have) was a kind of "secret knowledge," called Gnosis, from the Greek 'to know.'

Although it's often conflated with early Christianity, Gnosticism isn't a religion, but rather a way of being in the world – a path to self-realization and integration with a more profound sense of reality.

As usual, back in the old days, an understanding that couldn't be directly expressed intellectually was passed along in the form of a myth, a story that communicates the "secret knowledge" that can only be understood

through an experience of the heart, not the head; and the heart is quite literally where The Feminine Divine enters in.

The Gnostic Origins of The Myth of the Divine Sophia

In the Gnostic myth of how the world works, Sophia, the feminine personification of wisdom, lives happily with spirits of light (especially her twin brother), in the unified limitless potential of her Father's radiance, created by the twin powers of Depth and Silence.

She's so dizzy with love for the Creative Source that when she sees a brilliant shimmering light below, she flings herself down into the darkness, mistakenly following what she believes to be her Father's radiance, fooled by a mere reflection. There, in the abysmal unrealized potential of the world, she is trapped – separated from the light, the spiritual realization of Gnosis – the knowledge of transcendent unity.

"Water finds its greatest power by seeking its lowest point."

-Zen saying

There, the powers of the underworld have their way with her, using, abusing, and exploiting her, until all she knows is sadness in the struggle to return herself up to the light she has lost, but not forgotten. She gives birth to a bunch of bad boys, demigods called archons, including the worst of them all, the demiurge who becomes the creator of this world, infecting it with pride, ignorance, fear, and his lust for power and pleasure.

But Sophia remains present, and in her resurgent power she brings great beauty and spiritual potential to the Earthly realm and its inhabitants. Witnessing the irresponsible creation of the world by her errant offspring, Sophia conceals

Consciousness in the body of the demiurge's first man, "Adam," and then brings it into the world as "Eve."

Finally, Sophia breaks free and ascends back up to the true light of life, raising humanity with her ever so slightly. But she refuses to abandon the sad world of humans, and so she divides herself, keeping a part below, ever present and available for the enlightenment of all.

Here, we may call that Gaia – the consciousness of the world.

Back up in the celestial realm of spiritual light, Sophia rediscovers Gnosis by joining her twin brother in a "marriage" of reunification, balancing the masculine ego of unrealized potential, and uniting it with the sacred feminine – made ever more powerful by adversity – into an androgynous whole. A complete person, full with the knowledge of the transcendent, unified light.

The Feminine Heart of the Earth

This is the sublimely sophisticated philosophy of the myth of Sophia, a path that leads not only to self-realization, but also to an understanding of the feminine heart and soul of the Earth.

For its only in the feminine–the channel of creation into the world–that humanity finds the power and compassion necessary to overcome the darkness of ignorance.

But it just ain't easy getting there, as any woman struggling in "a man's world" can tell you, although much less of a problem in the ancient Gnostic world, where, prior to the (ongoing) suppression of the Feminine Divine, women were equal to men in every intellectual and spiritual respect.

One Woman, Many Names

Sophia ends up being the giver of wisdom in so many forms: She is Shakti in Sanskrit, the powerful Hindu personification of feminine wisdom, and the personal and collective linking soul as atman, realized in the transcendent state of samadhi (Gnosis). She is the compassionate

Boddhisatva (Avalokiteshvara) in Buddhism, returning to light the path to nirvana (Gnosis); personified by the deity Guanyin. She is both Mother Mary, in her ascendant form, and Mary Magdalene, as the Earthly companion of the Christ potential in Christian Gnosticism. In Jungian psychology, she is the unifying power ("individuation") of both the feminine and masculine archetypes, anima and animus, and of the lower self of the psyche with the higher spiritual self (Gnosis).

So you see, Sophia really gets around; or as my late uncle (by marriage), the great Jungian psychologist and philosopher, James Hillman put it:

She is the Sophia of wisdom, the Maria of compassion, the Persephone of destruction, compelling Necessity and Fate, and the Muse.

Modern Psychological Understanding

What may be most remarkable about the myth of Sophia, is the way it foreshadows–and even predetermines–what we think of as modern psychological understanding. Carl Jung recognized it as a myth of reflection that reflected collective and individual psychology – not just as the metaphor of following "God's reflection" down into the abyss as an act of necessary self-centeredness and hubris, eventually leading to a humble redemption; Jung also recognized the myth of Sophia as the precursor of a many-layered structural pathology of both our individual search for health and wholeness, and of the cultural and spiritual potential of humankind. He saw the myth as an illuminating structure, which, when shined on the collective unconscious, could guide the realization of human spiritual evolution; and the metaphor as what Joseph Campbell called, "a psychologically affective image transparent to transcendence."

Finding the Way Back Up

So don't be afraid to share a dance with Sophia – she's quite a girl, I promise. Allow her to take you to that place down across the tracks that we

all must visit, where we become painfully separated from our true potential, and exiled from what we are really capable of becoming. From there, she can show you the way back up, the way to get in touch with your divinely feminine soul (the soul of the world), and unify it with the willful (but powerful and promising) masculine aspect of ego. Then, the separation becomes a matrimonial solution, where you may discover that the myth is the means to learning the whole secret – of you, of me, of us, and of a whole world.

Those favored by the grace of Sophia may devote their lives to offering active service in the public arena, or, again, they may simply bring the compassionate light of Sophia to bear upon the private human tasks of their daily lives.

https://www.gaia.com/article/worlds-soul-woman-gnostic-myth-sophia, Dr. Stephan Hoeller

The Movie Lucy, Luciferianism, and Transhumanism

I watched the occult Elite's satanic-futuristic pendant-Transhumanism-bullshit-movie "Lucy"(Lucifer) about their Luciferian philosophy. Luc Besson's movie is about a woman (Lucifer) who unlocked the full, 100% potential of her brain power instead of the 10% humans reportedly use.

Lucy is a science fiction movie that combines profound existential questions with a bunch of action scenes involving Asians. There is an esoteric message hiding behind it all (isn't there everywhere nowadays)? Lucy is indeed more than a movie in which Scarlett Johannsson being a "badass"– it is an allegorical tale celebrating the philosophy of the elite: Luciferianism.

The fact that the main character is named Lucy is the first clue hinting towards the philosophical basis of the movie. The name Lucy and Lucifer

both derive from the Latin word "lux" which means "light". Lucifer means "light-bringer" in Latin, and is considered by Luciferians to have brought divine knowledge (light) to humans after being cast out of heaven by God. In Luciferian circles, Lucifer is perceived as a "savior" who gave humans the knowledge necessary to ascend to divinity.

In the movie, however, Lucy is a human version of Lucifer, as her increased brain capacity allows her to gain the knowledge required to become a God. Going further than ancient Biblical tales, the movie is also labeled "transhumanist", which is a modern, futuristic byproduct of Luciferian though. I've wrote about this before, Epstein was for example very devoted to transhumance as I think 'they' all are.

Transhumanism is about humans reaching another level of development through man-made technology and robotics. "Luciferianism" is a word that is rarely used because the word "Lucifer" is associated with Satan in Judeo-Christian theology. It is nevertheless the philosophy that overwhelmingly prevails in the highest circles of society – what we call the occult elite. Interpreted in several forms, Luciferianism can be associated with philosophical currents such as humanism, Gnosticism and Kabbalism and is the driving force behind secret societies such as the Rosicrucians, the Freemasons and many others.

Luciferianism is about humans reaching divinity through human means. This philosophy is symbolically represented by two mythical figures who bear similar characteristics: Prometheus and Lucifer. Both of these figures are considered by some circles to be benefactors of humanity as they brought fire and light (representing divine knowledge) to struggling humans. They gave mankind the means to become gods themselves, through their own means. From this perspective, Luciferians interpret Biblical tales from a unique vantage point.

In Genesis, Luciferians consider the snake who gave Eve the forbidden apple to be a hero, as he is the one who brought humanity knowledge of good, evil and everything in between. The story of the tower of Babel, a human construction meant to reach God in the sky is viewed favorably by Luciferians as it represents humanity's struggle to reach divinity; the building of this immense tower was, however, stopped by God who is perceived as a jealous demiurge who trapped humans in the physical world.

In the 20th century, a high-tech version of this philosophy appeared as Transhumanism, a movement that seeks the use of science and robotics to push humanity to another stage of development. Transhumanism's admitted ultimate goal is the total merging of humans and robots. While most people who agree with Transhumanism probably do not know much about Luciferianism, one of its "founding fathers" clearly sees the connection. The British philosopher Max More first articulated the principles of Transhumanism as a futurist philosophy in 1990 and started a worldwide intelligencia to promote it.

One of his essays, entitled "In Praise of the Devil" goes deep in a theological territory to connect Transhumanism with Luciferianism. The Devil—Lucifer—is a force for good (where I define 'good' simply as that which I value, not wanting to imply any universal validity or necessity to the orientation). 'Lucifer' means 'light-bringer' and this should begin to clue us in to his symbolic importance. The story is that God threw Lucifer out of Heaven because Lucifer had started to question God and was spreading dissension among the angels. We must remember that this story is told from the point of view of the Godists (if I may coin a term) and not from that of the Luciferians. The truth may just as easily be that Lucifer resigned from heaven.

According to More, Lucifer probably exiled himself out of moral outrage towards the oppressive demiurge Jehovah. He, therefore, describes the basis of Luciferian thought: "God, being the well-documented sadist that

he is, no doubt wanted to keep Lucifer around so that he could punish him and try to get him back under his (God's) power.

Probably what really happened was that Lucifer came to hate God's kingdom, his sadism, his demand for slavish conformity and obedience, his psychotic rage at any display of independent thinking and behavior. Lucifer realized that he could never fully think for himself and could certainly not act on his independent thinking so long as he was under God's control. Therefore he left Heaven, that terrible spiritual-State ruled by the cosmic sadist Jehovah, and was accompanied by some of the angels who had had enough courage to question God's authority and his value-perspective".

What does this all have to do with the movie Lucy? Well, Lucy is about everything above. It is about humanity reaching divinity through knowledge, about using science and technology to break "biological barriers". Although all of this might sound positive, there is a troubling, dark side to it all: Only a select few can be "illuminated" by the light of Lucifer. The rest of humanity is perceived as a lesser race with lives of no value. For this reason, Lucy remorselessly kills a bunch of people, including many innocents.

This is what Luciferian thought is truly about.

At the beginning of the movie, Lucy is a young woman who is clearly not a genius. She is manipulated by the douchebag she is dating to bring a suitcase to some person inside a hotel. She ends up getting mixed up in a high-stakes Asian mob deal – and she's confused and panicky the entire time. The first scenes of the movie are intercut with footage of a cheetah hunting a prey. This is a rather heavy-handed way of telling us that regular, un-illuminated humans act like animals in the jungle.

As she gets roughed up by the mobsters, Lucy wears a leopard-skin vest which tells you that Lucy is a regular, animalistic human who have yet to reach a high level of evolution. The mobsters end up turning Lucy into a drug mule. They insert into her body a packet of CPH4, a synthetic drug that is

about to flood the European market. After receiving a kick in the stomach, the packet located inside Lucy breaks and her body absorbs the contents of the entire packet. This causes her brain to become increasingly powerful.

At one point, a doctor tells Lucy:

"Pregnant women manufacture CPH4 in the sixth week of pregnancy in tiny quantities. For a baby, it packs the power of an atomic bomb. It's what gives the fetus the necessary energy to form the bones in its body. I heard they tried to make a synthetic version of it." In the philosophical context of the movie, the fact that the drug is synthetic (which means that it was created by humans), is important as it ties in with the transhumanist philosophy of human evolution through science and technology. Is there any scientific truth to Luc Besson's premise?

Here's a part of an interview with Besson discussing the science behind Lucy:

Reporter; Some people are complaining about the fact that the science behind your film — the whole idea that humans only use 10 percent of their brains — is not true. What's your response to that?

Besson; It's totally not true.

Do they think that I don't know this?

I worked on this thing for nine years and they think that I don't know it's not true? Of course I know it's not true. But, you know, there are lots of facts in the film that are totally right. The CPH4, even if it's not the real name, because I want to hide the real name this molecule exists and is carried by the woman at six weeks of pregnancy. While the scientific facts behind the movie are nebulous, the symbolic meaning of it all is not.

While Lucy is in the process of transforming into a transhuman superhero, Professor Norman (played by Morgan Freeman) gives a

presentation about the untapped power of the human brain. His speech quickly turns into an advertisement for Transhumanism. Professor Norman explains that the only aim of cells is to go through time and the only way to achieve this is to either become immortal or reproduce.

Lucy did not reproduce.

Professor Norman then says something that comes straight from a pamphlet for Transhumanism: "It's up to us to push the rules and laws and go from evolution to revolution". In other words, humans need to reach another stage through technological and scientific advancement, not through natural evolution.

This is exactly what happens to Lucy.

Along with acquiring a great amount of knowledge, Lucy develops extra-sensory perception (ESP) and is even able to control matter and other people. But one thing is terribly wrong: As soon as Lucy becomes smarter, she starts shooting and killing people. Why? Someone once said: "It is not about how much knowledge you have, it is about what you do with it". What did Lucy do when she became the most intelligent person on Earth?

1. Did she cure cancer?
2. Did she find a solution to world hunger?
3. Did she invent an economic system that is fair and profitable for all countries on Earth?

Nope.

She grabbed a gun a started shooting Asian guys.

Even worse, she goes on to cause pain and suffering of innocent people.

As soon as Lucy breaks out from her cell, she kills everybody in the vicinity.

Is remorselessly killing people a sign of advanced intelligence? While killing those involved with her capture is somewhat understandable (although she probably did not need to kill everybody), the bloodshed does not end there. When she goes outside, she shoots a taxi driver in the leg because he did not immediately comply with her request. Later in the movie, Lucy drives like a crazy person and causes a ten-car pileup. How many people died and got injured in the wreckage caused by Lucy?

Lucy doesn't care.

The pain Lucy causes is also psychological. When a doctor asks Lucy to prove her powers, she "enters" his brain and reminds him of the death of his daughter in specific detail. She could have told him about the color of his car, but why do that when you can talk about the most painful memory imaginable? Lucy's transformation takes a very specific direction and being a "good person" is not part of it. Her metamorphosis caused her to completely lack moral values, compassion and consideration for other human beings. Apparently, being extremely intelligent turns you into an evil transhuman robot.

Lucy herself says:

"I don't feel pain, fear, desire. It's like all things that make us human are fading away. It's like the less human I feel, all this knowledge about everything, quantum physics, applied mathematics, the infinite capacity of a cell's nucleus. They're all exploding inside my brain, all this knowledge." If one examines Lucy's evolution, one realizes that she turns into exactly what the occult elite represents. She uses her powers to control people and to advance her aims despite the human suffering she is causing.

She morphed into something that is not human and, all of a sudden, regular humans are treated by Lucy as lesser beings that are idiotic, manipulable, and expandable. Throughout Lucy's transformation, we see closeups of her eye which keeps changing forms, sometimes looking reptilian

which emphasizes the fact that she it not human anymore. Lucy also has no trouble use sex (one of human's animal weaknesses) to get what she wants. Also, like the occult elite, she spends a LOT of time controlling and monitoring people's electronic devices.

Not unlike the NSA, a creation of the elite to completely control the flow of information across the world, Lucy can easily take control of electronic devices. She can literally visualize and consult the data emitted by mobile finds towards the satellite, like the NSA. Of course, like the elite, she can appear on television and hear what you say in your living room. Interestingly enough, the television in Dr. Norman's hotel room is a Samsung (a brand which was recently discovered that listens to conversations even when it is turned off and sends it to a "third party", which can easily be the NSA).

Like the occult elite, Lucy is not on a pure, noble mission for illumination. There is a dark side to her actions, and apparently, since she's the hero of the movie, it's all good. Towards the end of the movie, Lucy is less a human being than a divine being who sacrifices her terrestrial life to becoming nothing less than a God (I don't use the term goddess because gods are neither male nor female). Lucy's meeting with Dr. Norman at La Sorbonne University turns into a strange, high-tech, occult ritual where she transcends space and time to achieve divinity.

During the entire ritual, lowly, idiot humans kill each other nearby in a flurry of gunshots. The ultimate goal of Lucy's transcendence is to pass on the knowledge she obtained, the same way two simple cells pass on their knowledge through time. However, according to Dr. Norman, this knowledge might be too powerful for mankind. "But all this knowledge, Lucy. I'm not even sure mankind is ready for it. We're so driven by power and profit. Given man's nature, it might bring us only instability and chaos (…). I just hope we'll be worthy of your sacrifice".

This is the thinking behind secret societies who "hide" their occult knowledge from the uninitiated behind several layers of symbolism (occult literally means "hidden"). The profane masses are considered too unworthy and primitive to deal with powerful knowledge. In short, Luciferians are extremely elitist. As Lucy transforms, she emits a great burst of light. As stated above, Lucifer means "light bringer" and, with her chemical enhancement, Lucy brings literal light and figurative light in form of knowledge. She gradually turns into a big, black mass of something I cannot define and creates a super-mega-computer to store her knowledge.

Lucy then sits in the middle of a ritualistic pentagram to give the process an occult undertone. Before completing her transformation, Lucy uses her powers to travel through space and time in order to visit various landmarks around the world. She ends up face to face with Lucy, "the first human on Earth". Lucy, of course, is the name given to the remains of a new species found in 1974 in Ethiopia. Named a new species called Australopithecus afarensis, it is considered by scientists to be a "missing link" between animals and humans. In a symbolic gesture, Lucy points her finger towards the other Lucy.

Lucy goes back a few million years in the past to meet Lucy the half-monkey. We, therefore, witness a Luciferian version of the Genesis, where Lucifer gives the "divine spark" to Lucy the half-monkey which will ultimately separate humans from animals. The scene is, of course, a heavy-handed reference to Michelangelo's mural where God creates Adam. The painting is also briefly shown earlier in the movie when Dr. Norman talks about humanity's amazing accomplishments despite only using 10% of its brainpower.

During the relentless fire between cops and mobsters, a statue of Robert de Sorbon - the founder of the University is destroyed - symbolically representing ignorant humans destroying knowledge. After the ritual turning Lucy into an immortal God she gives Dr. Norman a USB stick containing all

of her knowledge, which is pretty convenient. When a cop barges into the room and asks where is Lucy, he receives a text message that sums up the entire movie.

"I am everywhere."

Lucy has become an omniscient being who transcends time and space. Like a true Luciferian, she achieve God status through knowledge. The cop then looks towards the sky in admiration, the same way people usually look towards the heavens when thinking of God. The movie then ends with another symbolic scene:

The lifeless body of a mobster seen from above as if it was Lucy overlooking the blood sacrifice that was required to complete the occult ritual. Lucy was bashed by critics for being somewhat nonsensical – but being "sensical" was not the point of this movie. It is a treatise on Luciferian philosophy and it can only be fully "appreciated" by those who understand this philosophy. For those who don't, well, there's a bunch of action scenes peppered throughout to keep them entertained.

Meanwhile, they absorb the occult meaning of the movie without even realizing what's happening. These action scenes were meant to be in sharp contrast with Lucy's quest for knowledge because Luciferians perceive a sharp contrast between them and the masses. While Lucy's busy achieving immortality and turning into a God, a bunch of clueless guys kill each other for no good reason. And nobody cares. Because their lives are considered worthless. Therefore, beyond the nonsensical premise of Lucy, there is a very "sensical" message, one that is as powerful as it is disturbing:

There are two classes of humans on Earth and Transhumanism will widen the gap between them. Most of the projects involving Transhumanism have been described by observers as "playing God

It is exactly what Luciferians are about.

--Ian Theorem

Agenda 21: Central Planning on Steroids: Global Warming Believers Unmasked by Climategate

"In searching for a common enemy against whom we can unite, we came up with the idea that pollution, the threat of global warming, water shortages, famine and the like would fit the bill …. All these dangers are caused by human intervention in natural processes, and it is only through changed attitudes and behavior that they can be overcome. The real enemy then is humanity itself." --*The First Global Revolution*, the Club of Rome.

In 1968, a global think tank called the Club of Rome issued a report called "Limits to Growth." Composed of heads of state, U.N. bureaucrats, business leaders, scientists and others, the group called for resource conservation, population reduction and global governance.

The Club of Rome was not the first group to develop this thesis, but in the modern era it was one of the most influential when it came to laying out an overall plan for governing humanity.

Other think tanks and researchers followed, issuing reports documenting environmental degradation due to industrialization and overpopulation. The culmination of these concerns was a U.N. sponsored conference held in Rio de Janeiro in 1992. At the end of the conference a plan was released called Agenda 21 which was signed by 178 governments.

Primarily the brainchild of central planners in developed countries, Agenda 21 found fans on both sides of the aisle in Washington, D.C. In 1992 Congress ratified, and President George H. Bush signed, the Framework Convention on Climate Change. The purpose of the nonbinding treaty was to

stabilize greenhouse gas concentrations alleged to be due to manmade activities.

This was followed by President Clinton signing an Executive Order establishing a Council on Sustainable Development that employed different federal agencies to implement parts of Agenda 21. Clinton also signed the Kyoto Protocol, which was an international environmental treaty designed to prevent "dangerous anthropogenic interference with the climate system." However, the Senate refused to ratify the treaty and President George W. Bush later withdrew the U.S. from the treaty.

President Barack Obama brought Agenda 21 back to center stage once again by signing an Executive Order to establish a White House Rural Council to coordinate federal management of rural America, including family farms. Recent examples of their activities include a proposal by the Department of Transportation that would require everyone on a farm to obtain a Commercial Driver's License to operate farming equipment. Also proposed was a ban on children under 18 from working on family farms, although that proposal was withdrawn after a firestorm of protests. And a continued war by the FDA on dairies that sell raw milk.

The use of Executive Orders and the federal bureaucracy to pursue actions related to Agenda 21 has resulted in the enactment of laws not supported by the public and not passed by Congress. For example, one of the most important environmental programs tied to Agenda 21 was cap-and-trade legislation.

The "cap" in cap-and-trade being the legal limit on the quantity of greenhouse gases a region could emit each year and "trade" meaning that companies could swap emission permits among themselves. When cap-and-trade legislation failed to pass in the Senate, the EPA took it upon itself to regulate greenhouse gases, in effect usurping the role of Congress.

According to critics, at the heart of Agenda 21 are a number of goals that are contrary to American values, including: redistribution of wealth; abolishment of private property; population control and reduction; government-sanctioned monopolies through private-public partnerships; implementation of "sustainable development" policies at the local level; elimination of the middle class; collective instead of individual rights; and elimination of unsustainable uses of the environment, such as single-family homes, private cars, air conditioning, paved roads, dams and reservoirs, power lines, ski runs, fences, hunting, logging, industrial activity, livestock grazing and farming.

In effect, a form of neo-feudalism, but with a high-tech, "we are the world" look to it. Call it "1984" meets "Brave New World."

Americans remain largely in the dark about these developments because they are not widely covered in the mainstream media and because the plans have been put into effect gradually over the past 20 years. Indeed, what is covered by the national media is little more than tub thumping by the global warming crowd. The most recent example of this being an editorial in Scientific American stating that "Effective World Government Will be Needed to Stave Off Climate Catastrophe."

To make its case for Agenda 21, proponents have relied on "research" coming from governments, universities, think tanks and other nongovernmental organizations (NGOs). Critics have accused some of these groups of altering their findings to fit a particular political agenda. One example of this being the claim that industrialization has resulted in climate change or manmade global warming.

Anthropogenic global warming: science or politics?

One of the major tenets of Agenda 21 is the need to control human development because of the damage done to the Earth.

Energy use, and particularly the use of fossil fuels, is blamed for alleged changes in the climate worldwide and makes up what is called the Anthropogenic Global Warming (AGW) theory.

However, research and events over the last few years have raised doubts about the science behind AGW.

In 2009, for example, 61 megabytes of confidential e-mails between researchers at the University of East Anglia Climate Research Unit (UEACRU) were hacked and released to the public in a scandal later dubbed "Climategate."

The e-mails revealed that East Anglia researchers had conspired with other researchers to exaggerate the amount of global warming, had silenced dissent by making it difficult for scientists who disagreed to have their work published, had manipulated temperature data to fit their theory, and had destroyed evidence at odds with their theory.

Since it was East Anglia, along with other institutions, that was feeding research findings to the U.N.'s Intergovernmental Panel on Climate Change (IPCC), air began leaking out of the global warming balloon.

Following the Climategate scandal, additional research has cast even more doubt on the theory of AGW. The director of East Anglia, for example, finally admitted that the earth was actually warmer during the Medieval Warming Period than it is today.

Surveys of polar bear populations revealed their numbers were stable or growing, not declining. Claims of losses in the rainforests that were attributed to global warming were instead the result of logging. A new study established that the Himalayas have suffered no significant loss of ice over the past decade. Last, the most recent evidence is that world temperatures have risen less than two-tenths of 1-degree Fahrenheit in the last 20 years.

Indeed, some researchers now think it's more likely that we are entering a new mini Ice Age.

MIT Scientist

Scientists dissenting from the theory of AGW have also become more outspoken about the flaws in the science.

One of these is Dr. Richard Lindzen who is the Alfred P. Sloan Professor of Meteorology, Department of Earth, Atmospheric and Planetary Sciences at MIT. He has written and spoken out against the AGW theory.

He said that over the last 150 years there have been temperature changes of only tenths of a degree, which calls into question the claim that industrialization has raised the Earth's mean temperature.

"There's no doubt that what we do will have some effect, but even the doubling of CO2 would have a relatively small effect, only a change of 1 degree," he said. "Models created by AGW scientists increase CO2 levels by a factor of 5 and everyone acknowledges that those are highly improbable."

Lindzen said that scientists who don't agree with the AGW proponents are often silenced. The Climategate e-mails included statements to the effect that any scientific journal editor who published articles critical of AGW would be severely attacked or fired. He said that he has been subject to it himself in cases where he was written articles for publication. Once those articles were published, the editor was immediately fired.

"Moreover, journals like Nature and Science have publicly declared that they will not publish anything that questions global warming," he said. "This is a political movement that co-ops a lot of things. Any time you hear anyone say, 'Believe us because we have authority and you can't check it yourself,' you should be suspicious. And I think the public at large is."

Lindzen is not alone in his skepticism. A petition was submitted to Congress in 2008 that was signed by over 31,000 American scientists, including 9,000 with Ph.D.s. Many of the signers currently work in climatological, meteorological, atmospheric, environmental, geophysical, astronomical and biological fields directly involved in the climate change controversy.

The petition states, "There is no convincing scientific evidence that human release of carbon dioxide, methane, or other greenhouse gases is causing or will, in the foreseeable future, cause catastrophic heating of the Earth's atmosphere and disruption of the Earth's climate … Moreover, there is substantial scientific evidence that increases in atmospheric carbon dioxide produce many beneficial effects upon the natural plant and animal environments of the Earth."

However, not much has changed as a result of these revelations, because ultimately AGW theory is not about science but about global governance and, to a lesser extent, about making money. It is more about a belief system.

In short, it's bunk.

https://www.mtdemocrat.com/news/agenda-21-central-planning-on-steroids-global-warming-believers-unmasked-by-climategate/

Gary Marcus Help's Build The Perfect A.I. Beast System

Gary Marcus is a scientist, best-selling author, and entrepreneur. He is Founder and CEO of Robust.AI, and was Founder and CEO of Geometric Intelligence, a machine learning company acquired by Uber in 2016. He is the author of five books, including The Algebraic Mind, Kluge, The Birth of the

Mind, and The New York Times bestseller Guitar Zero, as well as editor of The Future of the Brain and The Norton Psychology Reader.

Gary Marcus has published extensively in fields ranging from human and animal behavior to neuroscience, genetics, linguistics, evolutionary psychology, and artificial intelligence, often in leading journals such as Science and Nature, and is perhaps the youngest Professor Emeritus at NYU. His newest book, co-authored with Ernest Davis, Rebooting AI: Building Machines We Can Trust aims to shake up the field of artificial intelligence.

--https://www.singularityweblog.com/gary-marcus/

Artificial Everything: No Human Intelligence Allowed

(From an Interview with Gary Marcus)

The question is, or should be, "How much of the hype surrounding artificial intelligence is warranted? "For 60 years scientists have been announcing that the great AI breakthrough is just around the corner. All of a sudden many tech journalists and tech business leaders appear convinced that, finally, AI has come into its own."

"We've all been seeing hype and excitement around artificial intelligence, big data, machine learning and deep learning. There's also a lot of confusion about what they really mean and what's actually possible today. These terms are used arbitrarily and sometimes interchangeably, which further perpetuates confusion.

So, let's break down these terms and offer some perspective.

Artificial Intelligence

Artificial Intelligence is a branch of computer science that deals with algorithms inspired by various facets of natural intelligence. It includes

performing tasks that normally require human intelligence, such as visual perception, speech recognition, problem solving and language translation. Artificial intelligence can be seen in many everyday products, from intelligent personal assistants in your smartphone to the X-box 360 Kinect camera, allowing you to interact with games through body movement. There are also well-known examples of AI that are more experimental, from the self-aware Super Mario to the widely discussed driverless car. Other less commonly discussed examples include the ability to sift through millions of images to pull together notable insights.

Big Data

Big Data is an important part of AI and is defined as extremely large data sets that are so large they cannot be analyzed, searched or interpreted using traditional data processing methods. As a result, they have to be analyzed computationally to reveal patterns, trends, and associations. This computational analysis, for instance, has helped businesses improve customer experience and their bottom line by better understand human behavior and interactions. There are many retailers that now rely heavily on Big Data to help adjust pricing in near-real time for millions of items, based on demand and inventory. However, processing of Big Data to make predictions or decisions like this often requires the use of Machine Learning techniques.

Machine Learning

Machine Learning is a form of artificial intelligence which involves algorithms that can learn from data. Such algorithms operate by building a model based on inputs and using that information to make predictions or decisions, rather than following only explicitly programmed instructions. There are lots of basic decisions that can be performed leveraging machine learning, like Nest with its learning thermostats as one example. Machine Learning is widely used in spam detection, credit card fraud detection, and product recommendation systems, such as with Netflix or Amazon.

Deep Learning

Deep Learning is a class of machine learning techniques that operate by constructing numerous layers of abstraction to help map inputs to classifications more accurately. The abstractions made by Deep Learning methods are often observed as being human like, and the big breakthrough in this field in recent years has been the scale of abstraction that can now be achieved. This, in recent years, has resulted in breakthroughs in computer vision and speech recognition accuracy. Deep Learning is inspired by a simplified model of the way Neural Networks are thought to operate in the brain.

No doubt AI is in a hype cycle these days. Recent breakthroughs in Distributed AI and Deep Learning, paired with the ever-increasing need for deriving value from huge stashes of data being collected in every industry, have helped renew interest in AI."

Human levels of understanding? Really?

How much of an AI breakthrough has humanity actually achieved, as opposed to wishful thinking?

"Gary Marcus, a psychology professor at New York University, who writes about artificial intelligence for the New Yorker, was the first to burst the balloon. He told Geektime that while the coalescence of parallel computation and big data has led to some exciting results, so-called 'deeper algorithms' aren't really that much different from two decades ago.

In fact, several experts concurred that doing neat things with statistics and big data (which account for many of the recent AI "breakthroughs") are no substitute for understanding how the human brain actually works.

"Current models of intelligence are still extremely far away from anything resembling human intelligence," philosopher and scientist Douglas Hofstadter told Geektime.

But why is everyone so excited about computer systems like IBM's Watson, which beat the best human players on Jeopardy! and has even more recently been diagnosing disease?

"Watson doesn't understand anything at all," said Hofstadter. "It is just good at grammatical parsing and then searching for text strings in a very large database."

Similarly, Google Translate understands nothing whatsoever of the sentences that it converts from one language to another, "which is why it often makes horrendous messes of them," said Hofstadter."

"In narrow domains like chess, computers are getting exponentially better.

But in some other domains, like strong artificial intelligence, general artificial intelligence, there's been almost no progress.

Not many people are fooled into thinking that Siri is an example of general artificial intelligence.

We were promised Rosie the robot and got Roomba, which wanders the room and tries not to bump into anything.

A.I. actually nearly died in 1973. There was something in Britain, called the Lighthill Report, that was compiled by James Lighthill for the British Science Research Council as an evaluation of the academic research in the field of artificial intelligence.

The report said that artificial intelligence only worked in narrow domains, it's unlikely to scale up, and that it will have limited applications. This report led basically to the end of funding in British A.I. research. This was called the first A.I. winter.

Current systems are still narrow. You have chess computers that can't do anything else, driverless cars that can't do anything else. There are language translators that are really good at translating languages, but are not perfect, often having a problem with syntax, and they can't actually answer questions about what they're translating.

What you end up having in A.I. is a community of idiot savants, with special service programs that do one thing, but aren't general.

Watson is probably the most impressive in some ways, but as with most artificial intelligence systems that actually work, there's a hidden restriction that makes it look a lot easier than it appears to be. When you look at Watson, you think, it knows everything, it can look it up really quickly, but it turns out that 95% of all of the

Jeopardy questions that it's trying to answer are the titles of Wikipedia pages. It's basically searching the Wikipedia pages, but seems like a general intelligence, but it isn't one.

IBM is still struggling to figure out what to do with it.

Your average teenager can pick up a new video game after an hour or two of practice or learn plenty of other skills.

The closest we have to that in AI is the company Deep Mind, which Google bought in 2014. It's a system that can-do general-purpose learning of a limited sort. It's actually better than humans in a few video games and in the game.

We're still a long way from machines that can master a wide range of tasks, understand something like Wikipedia and be able to learn for itself.

We were promised human level intelligence and what we got were things like 'key word' searches. Anyone who's done searches on Google has run into the limitations of this level of processing.

The trouble with Big Data is that it's all correlation and no causation:

You can always go and find correlations, but just finding correlations, which is what Big Data does, if it's done in an unsophisticated way, doesn't necessarily give you the right answer.

It's important to realize that children don't just care about correlations. They want to know why things are correlated:

Children are asking questions. Big Data is just collecting data.

AI's roots were in trying to understand human intelligence. Hardly anybody talks about human intelligence anymore. They just talk about getting a big data base and run a particular function on it."

"In Marcus' view, the only route to true machine intelligence is to begin with a better understanding of human intelligence. Big data will only get you so far, because it's all correlation and no causation.

When children begin learning about the world, they don't need big data. That's because their brains are understanding why one thing causes another. That process only requires "small data," says Marcus. "They don't need exabytes of data to learn a lot."

"My 22-month old is already more sophisticated than the best robots in the world in digging through bad toys and finding something new."

Marcus offers several examples of aspects of human intelligence that we need to gain a better understanding of if we are wanting to build intelligent machines. For instance, a human being who looks at the following picture will be able to guess what happens next:

"It you take a Deep Learning algorithm and have it look at a picture like this, it might do what's called a false alarm. It might say it sees a duck and it sees a car there too. You, as a human being, know that there's not a car in the

lake. So, if you have common sense, you use that a part of your analysis of the image and you don't usually get fooled.

Try doing a search on the following: 'Which is closer Paris or Saturn', and see what you get for search results. Any child should be able to answer that question, but for most search engines, you will just get various links to info about Saturn and some links to info about Paris.

Natural Language

There's a kind of sentence called a generic, which is things like 'triangles have three sides'. What is meant by generic here is the triangles have three sides in general.

But is can be looser than that. For example, one can say 'dogs have four legs'. Most dogs have four legs, but they don't all, since most people have seen three legged dogs.

The point here is that you can make sense of that statement. You can read an encyclopedia and make inferences about it.

How about 'ducks lay eggs'? Well, this isn't even true of most ducks since half the ducks are male and they don't lay eggs, and some of the ducks are too young or too old or have a disorder, and they don't lay eggs. So maybe only 30% of ducks actually lay eggs, but you understand it, you get it, you can think about it. We can make inferences, even though we don't have a statistically reliable truth.

Children are able to understand this but machines aren't.

The field of AI is hyped up to be further along than it actually is. There's been little progress on making genuinely smart machines. Statistics and Big

Data, as popular as they are, are never going to get us all the way there by themselves.

The only route to true machine intelligence is going to begin with a better understanding of human intelligence."

The Ideology of A.I.

"If computers don't actually even think in the human sense, then why do the media and high-tech business leaders seem so eager to jump the gun? Why would they have us believe that robots are about to surpass us?

Perhaps many of us actually want computers to be smarter than humans because it's an appealing fantasy. If robots are at parity with humans, then we can define down what it means to be human — we're just an obsolete computer program — and all the vexing, painful questions like why do we suffer, why do we die, how should we live? become irrelevant.

It also justifies a world in which we put algorithms on a pedestal and believe they will solve all our problems. Jaron Lanier compares it to a religion:

"In the history of organized religion," he told Edge.org, "it's often been the case that people have been disempowered precisely to serve what were perceived to be the needs of some deity or another, where in fact what they were doing was supporting an elite class that was the priesthood for that deity."

"That looks an awful lot like the new digital economy to me, where you have (natural language) translators and everybody else…contributing mostly to the fortunes of whoever runs the top computers. The new elite might say, "Well, but they're helping the AI, it's not us, they're helping the AI. The effect of the new religious idea of AI is a lot like the economic effect of the old idea, religion."

The Mythic Singularity

"Why is religious language so pervasive in AI and transhumanist circles? The odd thing about the anti-clericalism in the AI community is that religious language runs wild in its ranks, and in how the media reports on it. There are AI 'oracles' and technology 'evangelists' of a future that's yet to come, plus plenty of loose talk about angels, gods and the apocalypse.

Ray Kurzweil, an executive at Google, is regularly anointed a 'prophet' by the media – sometimes as a prophet of a coming wave of 'superintelligence' (a sapience surpassing any human's capability); sometimes as a 'prophet of doom' (thanks to his pronouncements about the dire prospects for humanity); and often as a soothsayer of the 'singularity' (when humans will merge with machines, and as a consequence live forever).

The tech folk who also invoke these metaphors and tropes operate in overtly and almost exclusively secular spaces, where rationality is routinely pitched against religion. But believers in a 'transhuman' future – in which AI will allow us to transcend the human condition once and for all – draw constantly on prophetic and end-of-days narratives to understand what they're striving for.

From its inception, the technological singularity has represented a mix of otherworldly hopes and fears. The modern concept has its origin in 1965, when Gordon Moore, later the co-founder of Intel, observed that the number of transistors you could fit on a microchip was doubling roughly every 12 months or so. This became known as Moore's Law: the prediction that computing power would grow exponentially until at least the early 2020s, when transistors would become so small that quantum interference is likely to become an issue.

'Singularitarians' have picked up this thinking and run with it. In Speculations Concerning the First Ultra-Intelligent Machine (1965), the

British mathematician and cryptologist I. J. Good offered this influential description of humanity's technological inflection point:

Let an ultra-intelligent machine be defined as a machine that can far surpass all the intellectual activities of any man however clever. Since the design of machines is one of these intellectual activities, an ultra-intelligent machine could design even better machines; there would then unquestionably be an 'intelligence explosion', and the intelligence of man would be left far behind. Thus the first ultra-intelligent machine is the last invention that man need ever make.

These meditations are shot through with excitement but also the very old anxiety about humans' impending obsolescence. Kurzweil has said that Moore's Law expresses a universal 'Law of Accelerating Returns' as nature moves towards greater and greater order. He predicts that computers will first reach the level of human intelligence, before rapidly surpassing it in a recursive, self-improving spiral.

When the singularity is conceived as an entity or being, the questions circle around what it would mean to communicate with a non-human creature that is omniscient, omnipotent, possibly even omnibenevolent. This is a problem that religious believers have struggled with for centuries, as they quested towards the mind of God.

In the 13th century, Thomas Aquinas argued for the importance of a passionate search for a relationship and shaped it into a Christian prayer: 'Grant me, O Lord my God, a mind to know you, a heart to seek you, wisdom to find you …' Now, in online forums, rationalist 'singularitarians' debate what such a being would want and how it would go about getting it, sometimes driving themselves into a state of existential distress at the answers they find.

A god-like being of infinite knowing (the singularity); an escape of the flesh and this limited world (uploading our minds); a moment of

transfiguration or 'end of days' (the singularity as a moment of rapture); prophets (even if they work for Google); demons and hell (even if it's an eternal computer simulation of suffering), and evangelists who wear smart suits (just like the religious ones do). Consciously and unconsciously, religious ideas are at work in the narratives of those discussing, planning, and hoping for a future shaped by AI.

The stories and forms that religion takes are still driving the aspirations we have for A.I. What lies behind this strange confluence of narratives? The likeliest explanation is that when we try to describe the ineffable – the singularity, the future itself – even the most secular among us are forced to reach for a familiar metaphysical lexicon. When trying to think about interacting with another intelligence, when summoning that intelligence, and when trying to imagine the future that such an intelligence might foreshadow, we fall back on old cultural habits. The prospect creating an AI invites us to ask about the purpose and meaning of being human: what a human is for in a world where we are not the only workers, not the only thinkers, not the only conscious agents shaping our destiny."

Superior Intelligence and Rogue AI

"In Aristotle's book, ***The Politics***, he explains: '[T]hat some should rule and others be ruled is a thing not only necessary, but expedient; from the hour of their birth, some are marked out for subjection, others for rule.' What marks the ruler is their possession of 'the rational element'. Educated men have this the most and should therefore naturally rule over women – and also those men 'whose business is to use their body' and who therefore 'are by nature slaves'. Lower down the ladder still are non-human animals, who are so witless as to be 'better off when they are ruled by man'.

So, at the dawn of Western philosophy, we have intelligence identified with the European, educated, male human. It becomes an argument for his

right to dominate women, the lower classes, uncivilized peoples and non-human animals.

Needless to say, more than 2,000 years later, the train of thought that these men set in motion has yet to be derailed.

The late Australian philosopher and conservationist Val Plumwood has argued that the giants of Greek philosophy set up a series of linked dualisms that continue to inform our thought. Opposing categories such as intelligent/stupid, rational/emotional and mind/body are linked, implicitly or explicitly, to others such as male/female, civilized/primitive, and human/animal. These dualisms aren't value-neutral, but fall within a broader dualism, as Aristotle makes clear: that of dominant/subordinate or master/slave. Together, they make relationships of domination, such as patriarchy or slavery, appear to be part of the natural order of things.

According to Kant, the reasoning being – today, we'd say the intelligent being – has infinite worth or dignity, whereas the unreasoning or unintelligent one has none. His arguments are more sophisticated, but essentially, he arrives at the same conclusion as Aristotle: there are natural masters and natural slaves, and intelligence is what distinguishes them.

This line of thinking was extended to become a core part of the logic of colonialism. The argument ran like this: non-white peoples were less intelligent; they were therefore unqualified to rule over themselves and their lands. It was therefore perfectly legitimate – even a duty, 'the white man's burden' – to destroy their cultures and take their territory. In addition, because intelligence defined humanity, by virtue of being less intelligent, these peoples were less human. They therefore did not enjoy full moral standing – and so it was perfectly fine to kill or enslave them.

So, when we reflect upon how the idea of intelligence has been used to justify privilege and domination throughout more than 2,000 years of history,

is it any wonder that the imminent prospect of super-smart robots fills us with dread?

From 2001: A Space Odyssey to the Terminator films, writers have fantasized about machines rising up against us. Now we can see why. If we're used to believing that the top spots in society should go to the brainiest, then of course we should expect to be made redundant by bigger-brained robots and sent to the bottom of the heap. If we've absorbed the idea that the more intelligent can colonize the less intelligent as of right, then it's natural that we'd fear enslavement by our super-smart creations. If we justify our own positions of power and prosperity by virtue of our intellect, it's understandable that we see superior AI as an existential threat.

Natural stupidity, rather than artificial intelligence, remains the greatest risk.

This narrative of privilege might explain why, as the New York-based scholar and technologist Kate Crawford has noted, the fear of rogue AI seems predominant among Western white men. Other groups have endured a long history of domination by self-appointed superiors and are still fighting against real oppressors. White men, on the other hand, are used to being at the top of the pecking order. They have most to lose if new entities arrive that excel in exactly those areas that have been used to justify male superiority.

I don't mean to suggest that all our anxiety about rogue AI is unfounded. There are real risks associated with the use of advanced AI (as well as immense potential benefits). But being oppressed by robots in the way that, say, Australia's indigenous people have been oppressed by European colonists is not number one on the list.

We would do better to worry about what humans might do with AI, rather than what it might do by itself. We humans are far more likely to deploy intelligent systems against each other, or to become over-reliant on them. As in the fable of the sorcerer's apprentice, if AIs do cause harm, it's

more likely to be because we give them well-meaning but ill-thought-through goals – not because they wish to conquer us. Natural stupidity, rather than artificial intelligence, remains the greatest risk."

Consumers Don't Want It

"2016 and 2017 saw "AI" being deployed on consumers experimentally, tentatively, and the signs are already there for anyone who cares to see. It hasn't been a great success.

The most hyped manifestation of better language processing is chatbots. Chatbots are the new UX, many including Microsoft and Facebook hope. Oren Etzoni at Paul Allen's Institute predicts it will become a "trillion-dollar industry" But he also admits "my 4 YO is far smarter than any AI program I ever met".

Hmmm, thanks Oren. So, what you're saying is that we must now get used to chatting with someone dumber than a four-year-old, just because they can make software act dumber than a four-year-old.

Put it this way. How many times have you rung a call center recently and wished that you'd spoken to someone even more thick, or rendered by processes even more incapable of resolving the dispute, than the minimum-wage offshore staffer who you actually spoke with? When the chatbots come, as you close the [X] on another fantastically unproductive hour wasted, will you cheerfully console yourself with the thought: "That was terrible, but least MegaCorp will make higher margins this year! They're at the cutting edge of AI!"?

In a healthy and competitive services marketplace, bad service means lost business. The early adopters of AI chatbots will discover this the hard way. There may be no later adopters once the early adopters have become internet memes for terrible service.

The other area where apparently impressive feats of "AI" were unleashed upon the public were subtle. Unbidden, unwanted AI "help" is starting to pop out at us. Google scans your personal photos and later, if you have an Android phone, will pop up "helpful" reminders of where you have been. People almost universally find this creepy. We could call this a "Clippy The Paperclip" problem, after the intrusive Office Assistant that only wanted to help. Clippy is going to haunt AI in 2017. This is actually going to be worse than anybody inside the AI cult quite realizes.

The successful web services today so far are based on an economic exchange. The internet giants slurp your data and give you free stuff. We haven't thought more closely about what this data is worth. For the consumer, however, these unsought AI intrusions merely draw our attention to how intrusive the data slurp really is. It could wreck everything. Has nobody thought of that?

A.I. Is a Make-Believe World Populated by Mad People

The AI hype so far has relied on a collusion between two groups of people: a supply side and a demand side. The technology industry, the forecasting industry and researchers provide a limitless supply of post-human hype.

The demand comes from the media and political classes, now unable or unwilling to engage in politics with the masses, to indulge in wild fantasies about humans being replaced by robots. The latter reflects a displacement activity: the professions are already surrendering autonomy in their work to technocratic managerialism. They've made robots out of themselves – and now fear being replaced by robots.

There's a cultural gulf between AI's promoters and the public that Asperger's alone can't explain. There's no polite way to express this, but AI

belongs to California's inglorious tradition of generating cults, and incubating cult-like thinking. Most people can name a few from the hippy or post-hippy years – EST, or the Family, or the Symbionese Liberation Army – but actually, Californians have been it at it longer than anyone realizes.

Today, that spirit lives on Silicon Valley, where creepy billionaire nerds like Mark Zuckerberg and Elon Musk can fulfil their desires to "play God and be amazed by magic", the two big things they miss from childhood. Look at Zuckerberg's house, for example. What these people want is not what you or I want. I'd be wary of them running an after-school club."

Should We Be Afraid of AI?

"Suppose you enter a dark room in an unknown building. You might panic about monsters that could be lurking in the dark. Or you could just turn on the light, to avoid bumping into furniture. The dark room is the future of artificial intelligence (AI). Unfortunately, many people believe that, as we step into the room, we might run into some evil, ultra-intelligent machines. This is an old fear. It dates to the 1960s, when Irving John Good, a British mathematician who worked as a cryptologist at Bletchley Park with Alan Turing, made the following observation:

Let an ultra-intelligent machine be defined as a machine that can far surpass all the intellectual activities of any man however clever. Since the design of machines is one of these intellectual activities, an ultraintelligent machine could design even better machines; there would then unquestionably be an 'intelligence explosion', and the intelligence of man would be left far behind. Thus, the first ultra-intelligent machine is the last invention that man need ever make, provided that the machine is docile enough to tell us how to

keep it under control. It is curious that this point is made so seldom outside of science fiction. It is sometimes worthwhile to take science fiction seriously.

Once ultraintelligent machines become a reality, they might not be docile at all but behave like Terminator: enslave humanity as a sub-species, ignore its rights, and pursue their own ends, regardless of the effects on human lives.

If this sounds incredible, you might wish to reconsider. Fast-forward half a century to now, and the amazing developments in our digital technologies have led many people to believe that Good's 'intelligence explosion' is a serious risk, and the end of our species might be near, if we're not careful. This is Stephen Hawking in 2014:

The development of full artificial intelligence could spell the end of the human race.

Last year, Bill Gates was of the same view:

I am in the camp that is concerned about superintelligence. First the machines will do a lot of jobs for us and not be super-intelligent. That should be positive if we manage it well. A few decades after that, though, the intelligence is strong enough to be a concern. I agree with Elon Musk and some others on this, and don't understand why some people are not concerned.

And what had Musk, Tesla's CEO, said?

We should be very careful about artificial intelligence. If I were to guess what our biggest existential threat is, it's probably that… Increasingly, scientists think there should be some regulatory oversight maybe at the national and international level, just to make sure that we don't do something very foolish. With artificial intelligence, we are summoning the demon. In all those stories where there's the guy with the pentagram and the holy water, it's like, yeah, he's sure he can control the demon. Didn't work out.

The reality is more trivial. This March, Microsoft introduced Tay – an AI-based chat robot – to Twitter. They had to remove it only 16 hours later. It was supposed to become increasingly smarter as it interacted with humans. Instead, it quickly became an evil Hitler-loving, Holocaust-denying, incestual-sex-promoting, 'Bush did 9/11'-proclaiming chatterbox. Why? Because it worked no better than kitchen paper, absorbing and being shaped by the nasty messages sent to it. Microsoft apologized.

This is the state of AI today. After so much talking about the risks of ultraintelligent machines, it is time to turn on the light, stop worrying about sci-fi scenarios, and start focusing on AI's actual challenges, in order to avoid making painful and costly mistakes in the design and use of our smart technologies.

The current debate about AI is a dichotomy between those who believe in true AI and those who do not. Yes, the real thing, not Siri in your iPhone, Roomba in your living room, or Nest in your kitchen. Think instead of the false Maria in Metropolis (1927); Hal 9000 in 2001: A Space Odyssey (1968), on which Good was one of the consultants; C3PO in Star Wars (1977); Rachael in Blade Runner (1982); Data in Star Trek: The Next Generation (1987); Agent Smith in The Matrix (1999) or the disembodied Samantha in Her (2013). You've got the picture. Believers in true AI and in Good's 'intelligence explosion' belong to the Church of Singularitarians. **For lack of a better term, disbelievers will be referred to as members of the Church of A.I.theists. Let's have a look at both faiths and see why both are mistaken.** And meanwhile, remember: good philosophy is almost always in the boring middle.

Singularitarians believe in three dogmas. First, that the creation of some form of artificial ultra-intelligence is likely in the foreseeable future. This turning point is known as a technological singularity, hence the name. Both the nature of such a superintelligence and the exact timeframe of its arrival are left unspecified, although Singularitarians tend to prefer futures that are

conveniently close-enough-to-worry-about but far-enough-not-to-be-around-to-be-proved-wrong.

Second, humanity runs a major risk of being dominated by such ultra-intelligence. Third, a primary responsibility of the current generation is to ensure that the Singularity either does not happen or, if it does, that it is benign and will benefit humanity. This has all the elements of a Manichean view of the world: Good fighting Evil, apocalyptic overtones, the urgency of 'we must do something now or it will be too late', an eschatological perspective of human salvation, and an appeal to fears and ignorance.

Put all this in a context where people are rightly worried about the impact of idiotic digital technologies on their lives, especially in the job market and in cyberwars, and where mass media daily report new gizmos and unprecedented computer-driven disasters, and you have a recipe for mass distraction: a digital opiate for the masses.

Like all faith-based views, Singularitarianism is irrefutable because, in the end, it is unconstrained by reason and evidence. It is also implausible, since there is no reason to believe that anything resembling intelligent (let alone ultraintelligent) machines will emerge from our current and foreseeable understanding of computer science and digital technologies. Let me explain.

Sometimes, Singularitarianism is presented conditionally. This is shrewd, because the then does follow from the if, and not merely in an ex falso quodlibet sense: if some kind of ultra-intelligence were to appear, then we would be in deep trouble. Correct.

Absolutely. But this also holds true for the following conditional: if the Four Horsemen of the Apocalypse were to appear, then we would be in even deeper trouble.

At other times, Singularitarianism relies on a very weak sense of possibility: some form of artificial ultra-intelligence could develop, couldn't it?

Yes, it could. But this 'could' is mere logical possibility – as far as we know, there is no contradiction in assuming the development of artificial ultra-intelligence. Yet this is a trick, blurring the immense difference between 'I could be sick tomorrow' when I am already feeling unwell, and 'I could be a butterfly that dreams it's a human being.'

There is no contradiction in assuming that a dead relative you've never heard of has left you $10 million. That could happen. So? Contradictions, like happily married bachelors, aren't possible states of affairs, but non-contradictions, like extra-terrestrial agents living among us so well-hidden that we never discovered them, can still be dismissed as utterly crazy. In other words, the 'could' is not the 'could happen' of an earthquake, but the 'it isn't true that it couldn't happen' of thinking that you are the first immortal human. Correct, but not a reason to start acting as if you will live forever. Unless, that is, someone provides evidence to the contrary, and shows that there is something in our current and foreseeable understanding of computer science that should lead us to suspect that the emergence of artificial ultra-intelligence is truly plausible.

Here Singularitarians mix faith and facts, often moved, I believe, by a sincere sense of apocalyptic urgency. They start talking about job losses, digital systems at risk, unmanned drones gone awry and other real and worrisome issues about computational technologies that are coming to dominate human life, from education to employment, from entertainment to conflicts. From this, they jump to being seriously worried about their inability to control their next Honda Civic because it will have a mind of its own. How some nasty ultraintelligent AI will ever evolve autonomously from the computational skills required to park in a tight spot remains unclear. The truth is that climbing on top of a tree is not a small step towards the Moon; it is the end of the journey. What we are going to see are increasingly smart machines able to perform more tasks that we currently perform ourselves.

If all other arguments fail, Singularitarians are fond of throwing in some maths. A favorite reference is Moore's Law. This is the empirical claim that, in the development of digital computers, the number of transistors on integrated circuits doubles approximately every two years. The outcome has so far been more computational power for less. But things are changing. Technical difficulties in nanotechnology present serious manufacturing challenges. There is, after all, a limit to how small things can get before they simply melt. Moore's Law no longer holds. Just because something grows exponentially for some time, does not mean that it will continue to do so forever.

Singularitarianism is irresponsibly distracting. It is a rich-world preoccupation, likely to worry people in leisured societies, who seem to forget about real evils oppressing humanity and our planet.

Deeply irritated by those who worship the wrong digital gods, and by their unfulfilled Singularitarian prophecies, disbelievers – A.I.theists – make it their mission to prove once and for all that any kind of faith in true AI is totally wrong. AI is just computers, computers are just Turing Machines, Turing Machines are merely syntactic engines, and syntactic engines cannot think, cannot know, cannot be conscious. End of story.

AItheists' faith is as misplaced as the Singularitarians'. Both Churches have plenty of followers in California, where Hollywood sci-fi films, wonderful research universities such as Berkeley, and some of the world's most important digital companies flourish side by side. This might not be accidental. When there is big money involved, people easily get confused. For example, Google has been buying AI tech companies as if there were no tomorrow, so surely Google must know something about the real chances of developing a computer that can think, that we, outside 'The Circle', are missing? Eric Schmidt, Google's executive chairman, fueled this view, when he told the Aspen Institute in 2013: 'Many people in AI believe that we're close to [a computer passing the Turing Test] within the next five years.'

The Turing test is a way to check whether AI is getting any closer. You ask questions of two agents in another room; one is human, the other artificial; if you cannot tell the difference between the two from their answers, then the robot passes the test. It is a crude test. Think of the driving test: if Alice does not pass it, she is not a safe driver; but even if she does, she might still be an unsafe driver. The Turing test provides a necessary but insufficient condition for a form of intelligence. This is a really low bar. And yet, no AI has ever got over it. More importantly, all programs keep failing in the same way, using tricks developed in the 1960s.

Both Singularitarians and AItheists are mistaken. As Turing clearly stated in the 1950 article that introduced his test, the question 'Can a machine think?' is 'too meaningless to deserve discussion'. This holds true, no matter which of the two Churches you belong to. Yet both Churches continue this pointless debate, suffocating any dissenting voice of reason.

True AI is not logically impossible, but it is utterly implausible. We have no idea how we might begin to engineer it, not least because we have very little understanding of how our own brains and intelligence work. This means that we should not lose sleep over the possible appearance of some ultra-intelligence. What really matters is that the increasing presence of ever-smarter technologies is having huge effects on how we conceive of ourselves, the world, and our interactions. The point is not that our machines are conscious, or intelligent, or able to know something as we do. They are not. There are plenty of well-known results that indicate the limits of computation, so-called undecidable problems for which it can be proved that it is impossible to construct an algorithm that always leads to a correct yes-or-no answer.

We know, for example, that our computational machines satisfy the Curry-Howard correspondence, which indicates that proof systems in logic on the one hand and the models of computation on the other, are in fact structurally the same kind of objects, and so any logical limit applies to

computers as well. Plenty of machines can do amazing things, including playing checkers, chess and Go and the quiz show Jeopardy better than us. And yet they are all versions of a Turing Machine, an abstract model that sets the limits of what can be done by a computer through its mathematical logic.

Quantum computers are constrained by the same limits, the limits of what can be computed (so-called computable functions). No conscious, intelligent entity is going to emerge from a Turing Machine. The point is that our smart technologies – also thanks to the enormous amount of available data and some very sophisticated programming – are increasingly able to deal with more tasks better than we do, including predicting our behaviors. So, we are not the only agents able to perform tasks successfully.

These are ordinary artifacts that outperform us in ever more tasks, despite being no cleverer than a toaster. Their abilities are humbling and make us reevaluate human exceptionality and our special role in the Universe, which remains unique. We thought we were smart because we could play chess. Now a phone plays better than a Grandmaster. We thought we were free because we could buy whatever we wished. Now our spending patterns are predicted by devices as thick as a plank.

What's the difference? The same as between you and the dishwasher when washing the dishes. What's the consequence? That any apocalyptic vision of AI can be disregarded.

The success of our technologies depends largely on the fact that, while we were speculating about the possibility of ultra-intelligence, we increasingly enveloped the world in so many devices, sensors, applications and data that it became an IT-friendly environment, where technologies can replace us without having any understanding, mental states, intentions, interpretations, emotional states, semantic skills, consciousness, self-awareness or flexible intelligence. Memory (as in algorithms and immense datasets) outperforms

intelligence when landing an aircraft, finding the fastest route from home to the office, or discovering the best price for your next fridge.

Digital technologies can do more and more things better than us, by processing increasing amounts of data and improving their performance by analyzing their own output as input for the next operations. AlphaGo, the computer program developed by Google DeepMind, won the boardgame Go against the world's best player because it could use a database of around 30 million moves and play thousands of games against itself, 'learning' how to improve its performance. It is like a two-knife system that can sharpen itself. What's the difference? The same as between you and the dishwasher when washing the dishes. What's the consequence? That any apocalyptic vision of AI can be disregarded.

We are and shall remain, for any foreseeable future, the problem, not our technology.

So, we should concentrate on the real challenges:

We should make AI environment-friendly. We need the smartest technologies we can build to tackle the concrete evils oppressing humanity and our planet, from environmental disasters to financial crises, from crime, terrorism and war, to famine, poverty, ignorance, inequality and appalling living standards.

We should make AI human-friendly. It should be used to treat people always as ends, never as mere means, to paraphrase Immanuel Kant.

We should make AI's stupidity work for human intelligence. Millions of jobs will be disrupted, eliminated and created; the benefits of this should be shared by all, and the costs borne by society.

We should make AI's predictive power work for freedom and autonomy. Marketing products, influencing behaviors, nudging people or fighting crime and terrorism should never undermine human dignity.

And finally, we should make AI make us more human. The serious risk is that we might misuse our smart technologies, to the detriment of most of humanity and the whole planet. Winston Churchill said that 'we shape our buildings and afterwards our buildings shape us'. This applies to the infosphere and its smart technologies as well.

Singularitarians and AItheists will continue their diatribes about the possibility or impossibility of true AI. We need to be tolerant. But we do not have to engage. As Virgil suggests in Dante's Inferno: 'Speak not of them, but look, and pass them by.' For the world needs some good philosophy, and we need to take care of more pressing problems."

--http://coconutrevival.com/?p=6614

Gamification as Tyranny

The Dark Side of Gamifying Work

One of the most common user experiences of our time is also a tool of social control. And nowhere is that truer than in the workplace. Deep under the Disneyland Resort Hotel in California, far from the throngs of happy tourists, laundry workers clean thousands of sheets, blankets, towels and comforters every day. Workers feed the heavy linens into hot, automated presses to iron out wrinkles, and load dirty laundry into washers and dryers large enough to sit in. It's loud, difficult work, but bearable. The workers were protected by union contracts that guaranteed a living wage and affordable healthcare, and many had worked decades at the company. They were mostly happy to work for Disney.

This changed in 2008. The union contracts were up, and Disney wouldn't renew without adjustments. One of the changes involved how management tracked worker productivity. Before, employees would track how many sheets or towels or comforters the workers washed, dried, or

folded on paper notes turned in at the end of the day. But Disney was replacing that system with an electronic tracking system that monitored their progress in real time.

Electronic monitoring wasn't unusual in the hotel business. But Disney took the highly unusual step of displaying the productivity of their workers on scoreboards all over the laundry facilities, says Austin Lynch, director of organizing for Unite Here Local 11. According to Lynch, every worker's name was compared with the names of coworkers, each one color-coded like traffic signals. If you were keeping up with the goals of management, your name was displayed in green. If you slowed down, your name was in yellow. If you were behind, your name was in red. Managers could see the monitors from their office, and change production targets from their computers. Each laundry machine would also monitor the rate of worker input, and flash red and yellow lights at the workers directly if they slowed down.

'They had a hard time ignoring it,' said Beatriz Topete, a union organizer for Unite Here Local 11 at the time. 'It pushes you mentally to keep working. It doesn't give you breathing space.' Topete recalled an incident where she was speaking to workers on the night shift, feeding hand-towels into a laundry machine. Every time the workers slowed down, the machine would flash at them. They told her they felt like they couldn't stop.

The workers called this 'the electronic whip'.

While this whip was cracking, the workers sped up. 'We saw a higher incidence of injuries,' Topete said. 'Several people were injured on the job.' The formerly collegial environment degenerated into a race. The laundry workers competed with each other, and got upset when coworkers couldn't keep up. People started skipping bathroom breaks. Pregnant workers fell behind. 'The scoreboard incentivizes competition,' said Topete. 'Our human competitiveness, whatever makes us like games, whatever keeps us wanting to win, it's a similar thing that was happening. Even if you didn't want to.'

The electronic whip is an example of gamification gone awry.

Gamification is the application of game elements into nongame spaces. It is the permeation of ideas and values from the sphere of play and leisure to other social spaces. It's premised on a seductive idea: if you layer elements of games, such as rules, feedback systems, rewards and videogame-like user interfaces over reality, it will make any activity motivating, fair and (potentially) fun. 'We are starving, and games are feeding us,' writes Jane McGonigal in Reality Is Broken (2011). 'What if we decided to use everything, we know about game design to fix what's wrong with reality?'

Consequentially, gamification is everywhere. It's in coupon-dispensing loyalty programs at supermarkets. Big Y, my local supermarket chain in Boston, employs digital slot machines at the checkout for its members. Winning dispenses 'coins' that can be redeemed for deals. Gamification is in the driver interfaces of Lyft and Uber, which give badges for miles driven. Gamification is the premise of fitness games such as Zombies, Run! where users push themselves to exercise by outrunning digital zombies, and of language-learning apps such as Duolingo, where scoring prompts one to master more. The playground offices of Silicon Valley, complete with slides and ball pits, have been gamified. Your credit score is one big game, too.

But gamification's trapping of total fun masks that we have very little control over the games we are made to play – and hides the fact that these games are not games at all. Gamified systems are tools, not toys. They can teach complex topics, engage us with otherwise difficult problems. Or they can function as subtle systems of social control.

Games are probably as old as the human species itself. Archaeologists have unearthed mancala–like boards made of stone in Jordan, dated to 6,000 BC. The application of games to serious matters has probably been with us almost as long. The Egyptian board game senet represented the passage of the ka (or vital spark) to the afterlife; its name is commonly translated as 'the

game of passing'. The Roman senatorial class played latrunculi, an abstract game of military strategy to train the mind and pass the time. Dice-based games of chance are thought to have originated with ancient divination practices involving thrown knucklebones. Native American ball games served as proxies of war and were probably crucial to keeping the Iroquois Confederation together. As many as 1,000 players would converge to play what the Mohawk game called baaga'adowe (the little brother of war).

The conflation of game and ritual is likely by design. The Dutch cultural historian Johan Huizinga observed in Homo Ludens (1938) that both invoke a magic circle, a time and place outside of the norms of reality. During play, as during ritual, new rules supersede the old. Players are not tried as thieves for 'stealing' a base in baseball. The Eucharist doesn't literally become flesh during Catholic transubstantiation rituals. Through play and games, Egyptians could metaphorically engage with the afterlife without the inconvenience of dying.

An important aspect of early games was that they were still limited in size and scope. One-thousand-player stickball games between whole villages were a rarity. We don't see the emergence of anything analogous to modern gamification until the 18th century when Europe underwent a renaissance of games and game design. In 18th-century Paris, Rome, Vienna and London, an international leisure class emerged that communicated across national and linguistic divides through the medium of games. For example, one of the earliest four-person card games in Europe was ombre – from el hombre (the man) – which originated in 16th-century Spain. The game didn't become known outside Spain until almost the end of the 17th century, with the marriage of Maria Theresa of Spain to Louis XIV of France. Within a few years, the game spread across the continent and was playable in the courts and salons of every capital in Europe.

The spread of ombre coincided with a boom in games and game culture in Europe. Abraham and David Roentgen became a father-and-son

pair of rock stars for building foldable game-tables that could be rearranged to suit everything from backgammon to ombre. Playrooms appeared in the homes of the aristocracy and emergent bourgeois. Books of rules such as Pleasant Pastime with Enchanting and Joyful Games to Be Played in Society (1757) were translated into multiple languages. The Catholic Church got in on the act with the liberalization of lottery laws by popes Clement XII and Pius VI. In the 1750s, the Swiss mathematician and physicist Daniel Bernoulli even declared: 'The century that we live in could be subsumed in the history books as, ***The Century of Play***.

In the mid-18th century, Gerhard Tersteegen, an enterprising priest, developed the 'Pious Lottery', a deck of 365 cards with various tasks of faith. 'You'd read a prayer straight from the card,' explains the historian Mathias Fuchs of Leuphana University in Germany. It is reminiscent of modern mindfulness or religious apps that attempt to algorithmically generate spiritual fulfilment.

Soon, 18th-century musicians were incorporating the logic of game design into their music through randomized card- or dice-based systems for musical composition. Johann Sebastian Bach's student Johann Philipp Kirnberger, and second son, Carl Philipp Emanuel Bach, both wrote musical composition games – respectively, 'The Ever-Ready Minuet and Polonaise Composer' and 'A Method for Making Six Bars of Double Counterpoint at the Octave Without Knowing the Rules' (Musikalisches Würfelspiel), which was also attributed to Mozart. These games asked erstwhile composers to roll a pair of dice to randomly select pre-written measures for minuets. According to one estimate, Mozart's game features 1.3 x 1029 possible combinations. Players would stitch measures of music together in the order rolled to compose a final product, in essence enacting an algorithm. In a way, these resemble modern musical rhythm games such as Guitar Hero that provide the illusion of musical mastery for the sake of entertainment.

It's not clear what ended the century of play. Perhaps the rococo play culture of the 18th century ended with the wars and nationalistic fervor of the 19th. Fuchs suggests the French Revolution of 1789 as the likely cause. What's clear is that the centrality of games as a cultural force wouldn't reach 18th-century levels of saturation until the development of computers.

By the end of the 20th century, video and then computers became more ubiquitous and user-friendly, and digital games rose in scale and scope. To make computers more accessible, human-computer interface designers borrowed elements from early video games. Graphical user interfaces replaced code. Games and gamers became distinct subsets of the computer software and computer hobbyist landscapes. Because the first computer games were experiments in software design, computer and hobby magazines regularly printed and distributed lines of code. Programs, including games, were freely available to remix and experiment on. Importantly, this hobbyist culture, while not a utopia of gender equality, was not strictly male-coded initially.

As software development became more corporate, and the user experience more centralized, the discourse shifted away from the quality of the software to gameplay and user experience. Game development corporations seized on a booming market, cultivating gamers as a distinct category of consumer, and focusing on white, adolescent and teenage boys. Jennifer de Winter, a video-game scholar at Worcester Polytechnic Institute in Massachusetts, refers to this as the construction of techno masculinity. 'It takes over the ideology of what it takes to be a successful man. The gamer identity was constructed for them to consume as white, male and tech-savvy,' she explains. The workers of the future would be gamers.

By 2008, the gamification of work felt absolutely natural to a generation of people raised on ubiquitous digital technology and computer games. Tech startups were faced with the challenge of attracting and retaining users. Game designers and marketers including Jane McGonigal and Ethan

Zuckerman promoted the use of immersive game mechanics as a way of 'hacking happiness' and building user engagement at summits, speeches and TED talks. By 2010, interest in gamification intensified with the success of the social network game FarmVille, which seemed to have solved the problem of user retention and engagement. Marketers and consultants were quick to seize on gamification as a tool to create customer loyalty and manage human desire. They sought to capitalize on the 'addictive fun' of gambling and games by introducing 'pseudo-goals' unrelated to the primary goals of either the consumer or the business in question. Game design elements such as badges, points, scoreboards and progress-tracking proliferated across different platforms, apps and workspaces. In doing so, they unknowingly borrowed from the Pious Lottery. Saying a Hail Mary or going to church because of a game isn't necessarily aligned with the goal of eternal salvation, in much the same way as buying blood oranges for loyalty points isn't really the goal of grocery shopping.

This brings us back to the electronic whip; Disney was hardly alone. The US retail giant Target implemented the Checkout Game which tracked and scored the speed of minimum-wage checkout clerks. The clerks could see themselves scored in real time on their point-of-sale computers. The US ice-cream parlor chain Cold Stone Creamery marshalled the power of games to teach workers how to be expert ice-cream mixers with the game Stone City, which uses motion controls to teach people how to 'feel' out the correct scoops. The game calculates how large the scoops are in relation to the optimal sizes, and then tells the players how much their over-scoops cost the store. Workers were asked to download the game and play it in their off-hours.

Amazon has also bought big into gamifying work. Warehouse workers are subject to scoreboards that display the silhouettes of workers who were caught stealing, what they were caught stealing, and how they were caught. Their productivity is monitored by handheld devices that scan and locate

products. If their productivity drops, workers are disciplined with points on a scorecard. As in golf, more points is bad. Accrue enough points, and the worker is fired. White-collar workers too are scored and ranked by digital metrics, and by their peers and bosses. Until 2016, the bottom scorers were fired in what's called 'rank and yank' by the employees.

Through gamified technology, corporations such as Amazon and Disney now have an unprecedented level of control over the individual bodies of their employees. Steve Sims, a vice-president at the gamification firm Badgeville, now CallidusCloud, in California said: 'We like to think of it as behavior management.' In other words, how to get other people to do more stuff, more often.

This kind of micromanagement resembles Taylorism, a system developed by the American engineer Frederick Winslow Taylor during the 1890s to codify the movements and habits of mind that led to productivity. To eliminate inefficiency and waste, Taylor followed around the 'most productive' factory workers, recording the timing of all their movements with a stopwatch. He set managers, similarly, armed with stopwatches, to micromanage every detail of a job. Taylor was also famous for fudging his numbers in favor of speed-driving workers to exhaustion and, in some cases, to strike.

But the modern gamified workplace enables control beyond Taylor's wildest dreams. Games are sets of rules prescribing both actions and outcomes. A gamified workplace sets not just goals for workers but precisely how those goals can be achieved. Managers don't need to follow workers with stopwatches. They can use smartphones or apps. It's micromanagement with unprecedented granularity. 'This is Taylorism 2.0,' according to the media expert Steven Conway of Swinburne University of Technology in Australia. 'Activities are more rigidly defined and processed than ever.' The gamified workplace is not a game in the original sense, nor does it cultivate playful ends.

The problem of the gamified workplace goes beyond micromanagement. The business ethicist Tae Wan Kim at Carnegie Mellon University in Pittsburgh warns that gamified systems have the potential to complicate and subvert ethical reasoning. He cites the example of a drowning child. If you save the child, motivated by empathy, sympathy or goodwill – that's a morally good act. But say you gamify the situation. Say you earn points for saving drowning children. 'Your gamified act is ethically unworthy,' he explained to me in an email. Providing extrinsic gamified motivators, even if they work as intended, deprive us of the option to live worthy lives, Kim argues. 'The workplace is a sacred space where we develop ourselves and help others,' he notes. 'Gamified workers have difficulty seeing what contributions they really make.'

The problem isn't limited to work. Social platforms all employ some form of gamification in their stats, figures, points, likes and badges. Dating apps gamify our romantic life; Facebook gamifies friendship.

Even war has been gamified: drone pilots operate in a highly gamified environment. Foeke Postma, a researcher and program officer at the Dutch peace organization PAX, says that drone warfare often takes the shape of a game, right down to the joysticks or PlayStation-like controllers that the pilots use. 'The US Airforce and the Royal Air Force have specifically targeted gamers to recruit as drone operators,' he explains. The US drone program also employs game-like terminology when discussing targets. High-value assassination targets are called 'jackpots'. Anyone caught near a jackpot during an airstrike is called 'bugsplatter'. When drone pilots retire or transfer, they're given a scorecard of kills. Postma says that this framework risks the total dehumanization of the targets of drone warfare. In an interview with The Guardian, a drone pilot said: 'Ever step on ants and never give it another thought?'

The expansion of game-like elements into nongame spaces is a global phenomenon. We are all living in expanding, overlapping magic circles, with

some places moving faster than others. China in introducing a national, gamified social credit score through public-private partnerships. Eight credit scoring systems have been granted charters and each has a share of the national credit system. One social credit system ranks you based on how well you repay loans, the scores of your friends, where you shop and what you post to social media. This ranking determines whether you can receive loans or obtain a visa. In the US, the more limited FICO score can determine whether you get an apartment, a car, or a job.

The 20th-century French philosopher Michel Foucault would have said that these are technologies of power. Today, the interface designer and game scholar Sebastian Deterding says that this kind of gamification expresses a modernist view of a world with top-down managerial control. But the concept is flawed. Gamification promises easy, centralized overviews and control. 'It's a comforting illusion because de facto reality is not as predictable as a simulation,' Deterding says. You can make a model of a city in SimCity that bears little resemblance to a real city. Mistaking games for reality is ultimately mistaking map for territory. No matter how well-designed, a simulation cannot account for the unforeseen.

A prime example of gamification gone awry is Go365, a health app introduced in 2017 by the Public Employees Insurance Agency (PEIA) in West Virginia and the Humana health insurance company. The app was presented as a motivating tool and game, not unlike smartphone fitness apps. Go365's advertisements featured white, upper-middle-class joggers and attractively disheveled soccer moms buying carrots. The app tracked physical activity, steps and location. It also allowed users to give more sensitive information to Humana, such as blood glucose levels, sleep cycle, diet and the results of doctor's visits. Users were asked how often they drank and whether they smoked. Family medical histories were probed. The app awarded points, sets milestones and gave rewards for participation in the form of 'Bucks' that could be redeemed for gift cards. The agency claimed that the app was

voluntary, but failure to accrue enough points (and to increase points annually) meant an extra $500 in premiums and an additional $1,000 on top of existing deductibles. That might not sound like a lot, but most teachers and support staff in West Virginia make less than $40,000 a year. Many have second jobs. Many more are elderly or have chronic illnesses.

The legislature gave no option but to play Go365 – but how teachers were supposed to play was another matter. 'It was the cherry on top of a shit sundae,' said Michael Mochaidean, a teacher and organizer in West Virginia. The teachers didn't want to give up sensitive medical data. They didn't want their locations tracked. After years of funding cuts to the PEIA, they saw the app as a way to kick teachers off their healthcare altogether.

Enraged, the teachers of West Virginia took to Facebook. They complained, they organized, and in March of 2018 thousands of them descended on the capitol in Charleston in a wildcat strike. After years of low pay and slashed benefits, their dissatisfaction had finally crystallized around the imposition of Go365. They would not participate in the game. By the end of the strike, the teachers had won a pay raise, and forced West Virginia to end its contract with Humana. Go365 was phased out. The teachers had sent a message to their bosses. Neither their work nor their health was a game.

--https://www.fastcompany.com/90440198/san-diegos-massive-7-year-experiment-with-facial-recognition-technology-appears-to-be-a-flop by Vincent Gabrielle

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